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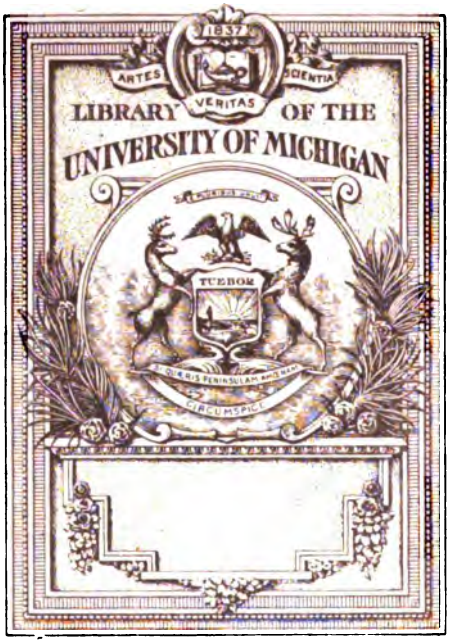
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THE

SURVEYORS' INSTITUTION

(*Incorporated by Royal Charter*),

12, GREAT GEORGE STREET, WESTMINSTER, S.W.

TRANSACTIONS.

VOL. XXXVI.

SESSION 1903-1904.

LONDON:

PUBLISHED AT THE INSTITUTION.

12, GREAT GEORGE STREET, WESTMINSTER, S.W.

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ERRATUM.

Page 381, line 6, "Part II." should be "Part III."

The Surveyors' Institution

(INCORPORATED BY ROYAL CHARTER),

12, GREAT GEORGE STREET,

WESTMINSTER, S.W.

OFFICERS, 1904-1905.

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1903 ALFRED BUCK

(The names of those deceased are printed in italics.)

Honorary Secretary.

PERCIVAL CURREY.

Secretary.

JULIAN C. ROGERS

The Surveyors' Institution

(INCORPORATED BY ROYAL CHARTER)

Is established—

1. To secure the advancement and facilitate the acquisition of that knowledge which constitutes the profession of a Surveyor, viz.—the art of determining the value of all descriptions of landed and house property, and of the various interests therein; the practice of managing and developing estates; and the science of admeasuring and delineating the physical features of the earth, and of measuring and estimating artificers' work.
2. To promote the general interests of the profession, and to maintain and extend its usefulness for the public advantage.

THE INSTITUTION was established in 1868, was incorporated by Royal Charter in 1881, and has a total membership of between 3,000 and 4,000.

THE INSTITUTION consists of four classes, viz.—FELLOWS, PROFESSIONAL ASSOCIATES, ASSOCIATES, and HONORARY MEMBERS, with a class of STUDENTS attached.

A FELLOW must be more than twenty-five years of age, and must have acquired a practical knowledge of surveying in one or other of its branches as above defined; and must have passed the Examination declared in the Rules of Examination to appertain to the class of Fellows, or some other Examination in the United Kingdom or the Colonies which the Council may declare to be equivalent thereto.* A Fellow has the right, conferred by the Charter, to use the letters F.S.I. after his name. A Fellow has also the right, under By-Laws allowed by H.M. Privy Council, to describe himself as "Chartered Surveyor."

A PROFESSIONAL ASSOCIATE must be more than twenty-one years of age, a Surveyor by profession, in practice on his own account or employed as an Assistant in a Surveyor's Office, and qualified for the class by having passed the Students' Proficiency Examination, or the Professional Associates' Qualifying Examination. A Professional Associate has the right, conferred by the Charter, to use the letters P.A.S.I.

* *The Council possess only a very limited dispensing power as regards the Examinations.*

after his name. A Professional Associate has also the right, under By-Laws allowed by H.M Privy Council to describe himself as "Professional Associate Chartered Surveyor."

An ASSOCIATE must be more than twenty-one years of age, not a Surveyor by profession, but his pursuits must be such as to qualify him to concur with Surveyors in the advancement of professional knowledge.

An HONORARY MEMBER must be a person who, either by reason of his position or experience, or his eminence in science, may be enabled to render assistance in promoting the objects of The Institution, but who is not engaged in practice as a Surveyor in Great Britain or Ireland. He has the privilege of being present and taking part at all Ordinary General Meetings, and of access to the Library, but no right of voting, discussing, or otherwise interfering in the affairs of The Institution; nor is he called on to contribute to its funds.

STUDENTS (who must be under eighteen years of age) qualify as such by passing the Students' Preliminary Examination. Candidates for Studentship who can produce a Certificate of having passed the Matriculation Examination of the University of Oxford, Cambridge, London, or any other University in the United Kingdom, or who have passed, with Honours, the Senior Local Examination of the University of Oxford or Cambridge, or who have obtained a Higher Certificate at the Examinations of the Oxford and Cambridge Schools' Examinations Board, or who have passed the Examination qualifying for the Studentship of the Institution of Civil Engineers, or the Preliminary Examination of the Institute of Chartered Accountants, are exempted from this Examination, and may be admitted by the Council on the recommendation (according to a form) of four Fellows and two Associates, or of the Fellow or Associate to whom they are or have been articled; but it is obligatory on all Students to undergo the Proficiency Examination at the close of their Student course. at the time and under the conditions applying in each particular case under the Rules of Examination.

The Council may accord to Students such privileges, subject to such terms, regulations and restrictions, as they shall from time to time prescribe.

Any person desirous of being admitted into The Institution (excepting to the class of Students) must be proposed and recommended according to a form, in which the full

name, place of business (if any), usual residence, and qualifications of the candidate must be distinctly specified. This form must be subscribed by him, and signed by at least six Fellows or four Fellows and two Associates, certifying a personal knowledge of the candidate; or by four Members of the Council, of whom the President shall be one, after careful enquiry into the antecedents of the applicant.

The proposal so made, being delivered to the Secretary, will be submitted to the Council, who, on approving the qualifications, will determine the class for which the candidate is to be presented for ballot.

The following are the rates of contribution to the funds:—

	Annual Subscription.			Admission Fee.		
	£	s.	d.	£	s.	d.
Student . . .	1	1	0	—		
Associate . . .	2	2	0	3	3	0
Professional Associate	2	2	0	3	3	0
Fellow . . .	3	3	0	5	5	0

No person can become a Member (other than an Honorary Member) of The Institution, unless and until he pays as his first Subscription to The Institution, in the case of becoming a Fellow of The Institution, the sum of Eight Guineas, in the case of becoming a Professional Associate of The Institution, the sum of Five Guineas, and in the case of becoming an Associate of The Institution, the sum of Five Guineas.

All Fellows, Professional Associates, and Associates, are required, within twelve months after their election, to deliver to the Council an original Paper on some subject connected with the profession, or to make a donation to the Library or Collection.

The affairs of The Institution are under the management of a Council, which is elected annually, consisting of a President, four Vice-Presidents, sixteen Fellows, two Professional Associates, and two Associates.

The Session of The Institution commences annually on the second Monday in November, and continues to the end of May. The Ordinary General Meetings are held on every alternate Monday during the Session. At these Meetings original communications are read on professional subjects, and their merits fully and freely discussed. Every Member has the privilege of introducing one visitor to these Meetings. Members are entitled to a copy of any printed publication issued by The Institution after their admission.

PAPER 290.
No. 458.

THE OPENING ADDRESS

BY

ALBERT BUCK, PRESIDENT,

READ AT THE ORDINARY GENERAL MEETING OF

THE SURVEYORS' INSTITUTION,

NOVEMBER 9TH, 1903.

HERBERT THOMAS STEWARD (Vice-President) in the Chair.

The CHAIRMAN said it was with great regret that he had to announce the inability of the President to attend the Meeting, owing to illness, from which, however, the Members would be glad to hear, he was steadily recovering. In a letter just received the President stated that he hoped very shortly to be in his place strong and well again—a hope in which all present would most cordially concur. In his unavoidable absence he asked that his Address might be read by the Secretary.

The Secretary then read the President's Address, as follows:

Gentlemen,

No one could more highly appreciate than I do the honour conferred by election to this chair. On the other hand no one could be more sensible of the responsibilities of the position, or of the serious nature of its duties

especially that which I am discharging this evening, somewhat to my own discomfort, and possibly to yours.

For, to tell the truth, the surveyor is not much of a literary man, or, if he be so, it is an accident and in no way arises out of his occupation. He is condemned to live in the world of facts, and, in my humble opinion, the more closely he sticks to facts, and the further he gets away from theorising, the better surveyor, speaking generally, he is likely to be.

It is his business, in the main, to deal with things as they are; to bring a steady hand and a sober mind to bear on the management of the great interests entrusted to his care and skill; to be honest and fearless in his advice, even though it be distasteful to his employer, and to keep a tight rein on his imagination.

His vocation is a curiously varied one. Most of you are as well aware as I am of the part which the surveyor has played in the great changes which have taken place in the last century—in the enclosure of commons, the construction of railways, the enfranchisement of copyholds and leaseholds, the commutation of tithes, and the drainage of land; vast operations which drew from many a quiet countryside the able men who, within the recollection of some in this room, became the skilled advisers, the trusted arbitrators, and, I may add, distinguished Members of this Institution, to whose hands were committed interests representing hundreds of millions of money.

During the same period the surveyor has been largely engaged in freeing land from the shackles and disabilities which limited its satisfactory usufruct either by tenants or owners.

At the commencement of the second half of the last century, the custom of renewing leases for years and

lives, by ecclesiastical corporations, had practically terminated, and the conversion of the limited estates into freeholds was in full swing. It is difficult to estimate the loss to the Church by the former wasteful method of leasing, or the effect on the cultivation of land held on such insecure tenures under the conditions which have prevailed during the last twenty-five years.

The gain to the Church by the altered method was estimated by Mr. E. J. Smith, in 1863, at not less than 16 per cent. of the capital value. Events have proved this to be probably much within the actual gain, and if one may judge by the appearance of some few estates in my county that are still held under leases for uncertain periods, I may safely assume that the change has been most beneficial to all concerned.

I refer to the subject because there were, in Worcestershire, very large areas held by leases for lives and years, and by grants in manors, the muniments relating to which were mere records in general volumes of *Court Rolls*, a transcript or "copy" forming the grantees' documentary title, as in ordinary and common renewable copyholds of inheritance.

Under these circumstances it is not possible to ascertain the number of separate properties that have been dealt with, although the reports of the Ecclesiastical Commissioners for England indicate to some extent the manner in which this clog on freedom of contract in land has been removed throughout England and Wales.

As coming within my own more immediate experience, I have ascertained that in the decade 1860-1870, when the greatest number of enfranchisements in Worcestershire were carried out, nearly 800 transactions affecting houses, shops, cottages, and nearly 25,000 acres of land belonging to the former episcopal and capitular establish-

ments of Worcester were completed, the estimated capital value being at least £1,250,000,

It is, perhaps, well for the Church that these proceedings took place 50 years ago, and not under the depressed prices of the last 15 years. The lessees, if still in possession of the enfranchised lands, may take another view, but I am not without hope that a large part of any loss by payment on valuations made in the fifties and sixties has been recouped by the better security which the owners could give to an improving tenant.

But further, "the opportunity of dealing with the "property has enabled arrangements to be effected "relative to building land and other improvable property "previously remaining agricultural land," and on the whole, as regards Worcestershire, I am satisfied that these enfranchisements have been of immense advantage.

The surveyor has borne no inconsiderable part, during the last fifty years, in the development of that great system of public works which has transformed the face of our towns and cities. It is within my time that society first awoke to the duties which it owes to the health and comfort of all classes of its members in the provision of a good supply of potable water, the sewerage of towns, the improvement and widening of the roads and streets, the demolition and reconstruction of insanitary dwellings, and in the provision of parks and open spaces.

Nor is there any reason for fearing that his services will be less in demand in the future than in the past, if he keeps himself abreast of modern knowledge. There are still problems enough ahead to give scope to all the surveyor's resources of skill and knowledge. Among these problems is the dealing with congested areas in

our large towns. Hundreds of thousands of pounds have been already spent in rehousing schemes, but the remedy, so far, shows no signs of overtaking the spread of the disease, nor is it likely to do so as long as we continue to allow an immense alien population to pour, without restraint, into our already over-crowded industrial centres.

There is a good deal of talk about the decentralization of factories, which would of course have the effect of a wider dispersal of the population dependent on them for their means of livelihood. There are signs that this process is commencing as the result of dear land and the ever increasing burdens of local taxation—an increase apparently without limit. Whether the process could be hastened by legislation I am not prepared to say, for I am no advocate of state interference where it can be avoided. In this, as in so many other matters, the natural operation of economic causes may be trusted to provide the solution, but this at any rate is clear, that the migration of factories on any large scale must have an enormous influence on the value of suburban land, and will be fruitful of employment for the rising race of surveyors.

But what are we to say about the future prospects of that vast area of land which cannot hope to feel the effects of any wider dispersal of our town populations, and which, according to our present limited knowledge, is only adapted to growing cereal crops, which at present prices do little more than repay the cost of production? Alas, I have very little to say that has not already been said a thousand times. Large areas have been laid down to pasture, which is generally very poor and unproductive. It is a question for consideration whether much may not be planted with forest trees, particularly larch.

The difficulty in doing this will, in many cases, be the finding of capital for the initial cost, and the waiting for a return—which must necessarily take some years.

The following statistics tend to show that, so far as wheat is concerned, competition with the foreigner is apparently growing more hopeless as time goes on.

IMPORTS OF BREAD-STUFFS INTO THE UNITED KINGDOM IN THE CEREAL YEARS 1892-3 TO 1902-3.

Cereal Year.	Wheat.	Flour as Wheat.	Total.
	Quarters.	Quarters.	Quarters.
1892-3	15,689,720	6,631,330	22,321,050
1893-4	16,182,357	6,027,175	22,209,526
1894-5	18,817,001	6,055,099	24,872,098
1895-6	16,051,721	6,457,619	22,509,340
1896-7	15,170,748	6,489,034	21,659,782
1897-8	15,489,738	6,471,623	21,961,361
1898-9	15,631,233	7,428,903	23,060,136
1899-1900	15,170,673	6,985,080	23,155,753
1900-1	16,608,814	7,567,069	24,175,883
1901-2	17,430,429	6,194,878	23,625,307
1902-3	19,861,987	6,215,634	26,077,621

These figures speak for themselves.

As regards bread-stuffs, climatic conditions, cheap land, and low freights handicap us hopelessly, but I am not able to understand why we should pay to the foreigner 6½ millions of pounds for eggs, and a still larger sum for bacon, ham, butter, and cheese imported, unless it be that during the times of high prices between 1866 and 1874, when corn averaged 56s. to 60s. a quarter, all the minor industries of the farm fell into a condition of neglect from which they have failed to recover, notwith-

standing all that has been done to resuscitate them by dairy and poultry schools and classes.

As regards the collection and distribution of the smaller agricultural products, such as butter, cheese, poultry, eggs, and fresh vegetables, it is prophesied that the road motor will bear a large part in future, and that a considerable saving both in time and expense to the farmers will thus be effected, and that the competition may lead to the pulling down of railway rates and secure for the British farmer equality of treatment with the foreigner.

I would advocate the farmers combining, particularly with reference to their milk and butter. Thus a large quantity of butter of exactly the same kind and quality might be produced, which would command a better price in the market than a quantity of samples, all good, but not all alike.

If, in addition, it were found possible to establish more local markets in the suburbs of London and other large towns, a good deal of small country produce would be diverted from the vortex of the central markets, where its price is determined by a small group of middle-men Unhappily, new markets have very rarely succeeded, but it is possible they might do so if combined with new and improved methods of transit, less handling, and more direct access to the consumer. If the much talked of "cash on delivery post" could be introduced, the small growers could gradually establish direct relations with the consumers on a perfectly safe pecuniary basis, and the railways would be compelled to show more expedition in the forwarding of small consignments of perishable goods. As a case in point, I may mention an instance when a friend of mine deposited a hamper of fresh vegetables at Waterloo Station, addressed to a place six miles distant, and situated within one mile of a South Western

Station. That hamper of vegetables reached its destination in the record time of 30 hours.

The landlords and tenants are, I hope, settling down to the changed conditions. The landlord accepts his reduced income, while the tenant is exercising a more minute supervision over small details in which waste too frequently occurs, and is bestowing more of his personal labour on the work of the farm. The result I trust will be that the old order will continue; though in many cases no doubt it will be a struggle, owing to the reduction in the capital of the industry.

But, bad as things are, I cannot believe that we are going to present to the world the unique spectacle of a nation endowed with unexampled wealth living in the midst of a wilderness, for one of the greatest of living statisticians, Sir Robert Giffen, has lately estimated the average annual income of the United Kingdom at one thousand seven hundred and fifty million pounds (£1,750,000,000), and its capital, or wealth, at fifteen thousand million (£15,000,000,000), and the total income of the Empire at three thousand one hundred and thirty millions (£3,130,000,000)—figures of unimaginable magnitude.

Now, considering that the ownership of the land in this country is so identified with ideas of social consequence, its possession can never fail to be the ambition of the moneyed classes. It is lamentable to see so many ancient estates changing owners, but it is impossible to deny that, in many cases, it means the substitution of an opulent for an embarrassed landlord, and who shall say what effect this influx of fresh capital may have in developing unsuspected sources of productiveness.

It was a happy and ideally perfect state of things when the land was worked with two capitals—that of

the landlord and that of the tenant farmer. It was the fashion in former times to put the tenant's capital at from £8 to £10 per acre. This may have been an over-estimate; but, be this as it may, no doubt one great difficulty we have to contend with at the present time is the insufficiency of the tenant's capital, while the landlords have lost hundreds of millions. The way in which they met the difficulties that came upon them, and culminated in 1879, is much to their credit as a class, for if they had enforced their legal claim on the tenants it would have ruined thousands. They, like their tenants, had in the prosperous times been led into a way of living which the industry did not justify. I venture to hope that the kind consideration shown by the landlords has enabled many tenants to start on altered lines, and that with reduced rents, and by conforming to the times, they may succeed in keeping their feet.

Custom very wisely debars me from entering in this room into the discussion of matters of party politics, which though no necessary part of great national questions, obtrude themselves everywhere, so I will not venture into the heated atmosphere of fiscal reform beyond saying that I am not able to satisfy myself that (whatever be the remedy) we ought to be wholly dependent upon the command of the sea for a supply of the first necessaries of life.

To show the drift of things, let me trouble you with a few figures. Comparing the quinquennial periods 1871-75 and 1881-85 with 1902, the area of land under arable cultivation steadily declined from 18¼ millions of acres in the first period to 17⅓ millions in the second, and to 15½ millions last year; while the area of land under permanent pasture has just as steadily increased in the same period from 13 millions to 15 millions, and

nearly 17 millions at these respective dates. It is, however, a fact worthy of notice that despite the increase of the area of permanent pasture the number of sheep (formerly the farmer's most valuable asset) has declined from 28¾ millions in 1871-75 to 25¾ millions in 1902.

Not to weary you, I will just add that last year the area under wheat was but 1¾ million acres, and the average price 28*s.* 1*d.* per quarter, while imports had risen to nearly 96 million cwts., of an average value of of 28*s.* 4*d.* per quarter. Nor is this at all a bottom figure, for I am informed, on good authority, that America, which is the principal source of our imported wheat supply, has accepted as low as 20*s.* a quarter, and I am assured by men in the trade that growers can continue to sell, even down to 23*s.* a quarter, before allowing their land to go out of cultivation. If this be so, we have a considerable margin for taxation, without raising the price of wheat in this country, supposing the object to be, which it is not, the mere raising of revenue.

But is it certain that such a low figure as 20*s.* a quarter can be maintained by the American exporter? If I am rightly informed, the estimated yield in the specially favoured wheat-growing district of Assiniboia, so far from reaching the reputed 40 or 50 bushels, does not exceed 18 bushels per acre. I further learn that the expense of wheat-growing in the North-West Territory is constantly increasing; that plough-horses which could, a year or two ago, be bought for £80 a pair now cost £100 a pair, and that their price is rapidly rising. These facts seem to indicate that increased cost of production will gradually raise the price above the point where corn can be exported at a profit; but this will hardly happen in our time.

I fear the agricultural outlook is not more encouraging from other points of view. The labour question yearly

becomes more acute. One of the penalties we are paying for having decided, as Mr. Balfour says, to become "pre-"dominantly manufacturing," is that, whereas in 1870 the urban population was 15,097,000, and the rural 15,787,000, our urban population in 1900 had mounted to 29,559,000, while our rural had fallen to 11,898,000. The great breadth of land which has gone out of arable cultivation in the last 30 years is no doubt accountable for much of this change, but not for all, by a very long way.

But in truth, the agricultural labour question is almost as old as English history. The ferocious "Statute of Labourers," 23rd Edward III., A.D. 1349, represents the earliest endeavour to deal with the growing scarcity of farm hands, who were perpetually striving to better their hopeless lot by fleeing to the more populous centres. The Act was repealed by 5 Elizabeth, c. 4, but the remedial legislation cannot be said to have done much to improve the material condition of the rural poor. The latter Act stipulated among other things that "every person between the age of "twelve and the age of three-score years, not being "lawfully retained nor apprenticed with any fisherman "or mariner haunting the seas, nor being in service with "any kiddyer or carrier of any corn, grain, or meal for "the provision of the city of London, nor with any "husbandman in husbandry," &c. &c., "shall be com-"pelled to be retained to serve in husbandry by the "year." According to the historian of "England in the "Fifteenth Century," if any girl (in common with the boys of the family) had before the age of twelve years put her hand to works of husbandry, she was to remain an agricultural labourer for the rest of her life, and was not allowed to be apprenticed or to learn a trade. The savage penalties imposed were, it is needless to say,

powerless to stay the tide of migration so long as the conditions of agricultural life remained unimproved. There is, of course, no parallel between those times and ours, but the same desire to better his condition which drew the agricultural labourer to the towns in the fourteenth century still tends towards the depopulation of the country districts, and it is for the modern sociologist to assist in devising a remedy for this long-standing difficulty.

In the country, as in the town, there is a general rebellion against what I may call the "humdrum" of life. Everyone must remark the larger addiction to pleasure and amusement which characterises all classes of the community as compared with fifty years ago. People are no longer content to work the hours which were considered quite natural and proper when some of us were young, nor are they content with the rare intermissions from the toils of business which satisfied us in those days. Is it therefore matter of wonder that the same spirit has spread to the classes on whom we depend for the cultivation of the land. The long hours, the monotonous existence, the poor wages, and the absence of prospect for the future, to say nothing of the miserable housing of the agricultural labourer in times not very remote, have led him, in the light of the education we now give him in the rural schools, to rebel against his lot. Whether he has bettered it by migrating to the towns is a matter of opinion. I, for one, think not.

If we ever succeed in getting the labourers back to the land, it will only be by a very slow process, and will be brought about, if at all, by economic pressure and not by any inducement we can offer. What we can do is to stay the further exodus as much as possible by making the conditions of country life more attractive and by so

re-modelling our system of rural education that it may have some relation to the needs of after life.

We have lately been bombarded with blue books, compiled for the purpose, among others, of showing that the position of the British labourer is favourable as compared with that of his foreign congener. His wages are declared to range between 22*s.* a week in the "high "wage" counties and 15*s.* in the "low wage," or an average of 18*s.* 6*d.* a week.

It is assumed that the average family consists of the man himself, his wife, and four children. On this basis it is estimated that, out of the average wage of 18*s.* 6*d.*, the family spends 13s. 0½*d.* on food, or 73 per cent., leaving 5*s.* 6*d.* a week for rent, clothing, firing, lights, &c. This computation of course leaves out of consideration all minor earnings in harvest time and by piecework, but there is clearly no margin out of which the man may make provision for the time when sickness or old age comes upon him. No wonder then that the labourer gets drawn away to the towns where, if at times he suffers great privations, he earns, at others, enough to provide him with some at least of what he considers the luxuries as well as the necessaries of life.

If we are to keep on the land those who still remain, their lot will have to be improved in some way. It is doubtful whether the business will bear any considerable increase in the rate of wages. Besides, a rise in wages is too often neutralised by a corresponding rise in the scale of living. What is wanted is better cottages, with the increased comfort which results; but above all better gardens, with fruit trees, and, where possible, as much land as will satisfy the universal craving for a fixed interest in the soil. We are giving away twelve millions of money in endeavouring to satisfy this instinct

in Ireland. Surely it is worth some sacrifice of public money to save our own fields from desolation.

The political cynic will point to the landlord as the person most interested, and ask why does he not see to it that the labourers are better housed; but it is the landlord class which has suffered the greatest relative impoverishment—an impoverishment which the death duties seem specially calculated to increase. The landlords are not therefore in a position, in many cases, to bear the burden. Is it not to the interest of the country at large, as much as to the interest of a class, to see that the rural districts shall still continue to serve their national purpose of breeding the bone and muscle which town life can never supply?

If the better housing of the working classes (many of them mechanics and high wage earners) in the towns is a matter of national concern, on what principle of equity can it be asserted that the agricultural labourer has no corresponding claim upon society at large.

The London County Council show in a recent report that they have spent on capital account, under the Housing of the Working Classes Acts, no less a sum than £3,555,480. Do our country villages, in which, in some counties, though not in mine, such a large proportion of our agricultural population reside, contain no miserable, insanitary cottages, the property not of well-to-do landlords, but of the small owners, shopkeepers and others, who have neither the means nor the inclination to improve them?

If this be so (and I have every reason to believe it to be the case), what are our county councils doing that they take no action of the kind taken by our large town corporations? Surely here is a direction in which something could be done to improve the lot of the agricultural

labourer, and thus help to keep upon the land those who still remain. On the estates of private owners, the cottages have, with few exceptions, been greatly improved in recent years. But the fact is the labourer does not love these isolated estate cottages. He wants, like others, to associate with his kind, and if he finds some attraction in village society, who shall blame him?

It is, I repeat, in the villages that the evils of bad housing are most in evidence, and here is, I think, a field for public effort that would not be without its reward.

We are doing our best in Worcestershire to give effect to the provisions of the Small Holdings Act. Near Bromsgrove there were a large number of persons interested in making nails by hand. The trade went from the place owing to nails being made by machinery, and large numbers of men were thrown out of employment.

They were of a hardy class, and the women worked as well as the men. Allotments were started under the Acts of 1887 and 1890, and when the Small Holdings Act 1892 was passed, it was put into operation. The County Council purchased a property of about 146 acres at a price of about £33 per acre including timber. The land was very suitable, and a scheme was prepared dividing the land into 32 small holdings.

Several members of the Council who resided in the country and had a special knowledge of land, being large successful farmers and owners, and large land agents and auctioneers, were placed on the committee, and from time to time discussed matters with the officials. In adapting the land for small holdings the officials prepared various proposals, and brought them before the committee, who went over the land and criticised them. If they agreed, they were carried out, otherwise they were altered. The

land was registered under the Act at the Land Registry, Lincoln's Inn, London, W., and the scheme was advertised. The Act and its working were explained to the men and lectures were given affording all necessary information. There was no trouble in getting applicants : the land could have been let three or four times over. The difficulty was to select suitable men. The men selected were nearly all resident in the district or had been in the district previously, but had left it for the towns on account of the scarcity of work. About half the men paid down one-fifth of the purchase money before completion, the remainder had to be given time which extended over about three years. Those who completed the purchase by paying down one-fifth had the land transferred to them at the Land Registry. The remainder entered into an agreement by which they were tenants until the one-fifth was paid, and then they completed their purchases as the others had done.

The result is that men pay, on a 4 per cent basis, rather more than the ordinary rent of the land, but this payment is sufficient in 40 years to repay the County Council the whole of the money advanced, and is worked out to leave a very fair profit. The County Council pay all expenses of registration, and their solicitor acts without charge for the men, if they desire it.

A building scheme has also been arranged under which a small holder can obtain an advance to enable him to build. He forwards plans, specifications, &c., and the same are submitted to the county surveyor and the county medical officer. If the building is to be erected on a proper site approved by the county surveyor, and the building is in accordance with the building by-laws of the local authority, and meets with the approval of the officers mentioned, the County Council inform the

applicant that they will advance up to three-fourths of the actual contract price of the proposed building. A tender is then obtained and a formal contract and bond are entered into, the clerk of the County Council preparing all the necessary documents, and so safeguarding the county ratepayers. The Council then formally agree to pay three-fourths of the contract price, leaving the small holder to find the remaining one-fourth and to pay the architect's fees. The money is advanced from time to time on the county surveyor's certificate. The small holder gives an undertaking to execute such documents as may be required, particularly a charge on his holding for the amount advanced, repayable in the same way and within the same period as the balance of the purchase money of his holding. Very good houses, consisting of a good kitchen-livingroom, with back kitchen and larder and three good bedrooms have been erected, with the necessary outbuildings, including stable, tool-house, copper for boiling pig food, and generally two pigstys, and the contract price has usually been about £350. All repairs are done by the County Council, and the county insure the property, thus protecting their own interests.

The small holdings are reported upon from time to time as to the method of cultivation, and as to whether any of the small holders are in arrear, and generally as to compliance with conditions. If a holder is not cultivating his land properly and is not carrying out the Council's requirements, his land will be sold, and another man will be put in possession, and the present holder will be paid such sum as may be found to be due to him.

The holders for the most part had been a kind of small blacksmiths, many of whom had previously held allotments and had some knowledge of the proper method

of cultivating land. It may be added that there are good roads into Birmingham, and the small holders, as a rule, sell their produce direct to the consumer, and bring back manure from the towns. The land is nice light soil which can be worked at any time, and does not "poach." There is no system of co-operation, either in the cultivation of the holdings or in the disposal of the produce, although the men's attention has been drawn to this.

In addition to the land above mentioned, the County Council have acquired, close to the same, about 300 acres as a site for a new lunatic asylum, and until the asylum is built the land has been let off.

What was formerly one farm has been split up and let on yearly tenancies to the same class of men as the small holders. Several of the small holders are tenants under this scheme. Another 40 acres of excellent land near Bromsgrove has been acquired by the County Council for small holdings, at a cost of £3,000.

Turning to another subject, our system of local taxation cannot wait much longer for radical reform. It is becoming a grievous burden, uncertain and unjust in its incidence and full of the most absurd anomalies Like our political system, it has grown by accretion and rests on no rational foundation or intelligible principle. It has got away from the much vaunted basis of self-taxation, owing to the fact that a large portion of it is raised by precepts issued by bodies out of touch with popular control, which sit serenely indifferent while the wrath of the ratepayers is vented on the locally-elected bodies, who act as mere collectors. Nothing more vicious could well be conceived, and the evil is intensified by the system of state subventions which simply mask the growth of the burden by doles from revenues ostensibly raised for other purposes.

Take the case of the great railway, gas, and water companies, whose undertakings extend beyond the one rating area. The Midland Railway is an extreme example, extending as it does through some 900 parishes. It is quite evident that undertakings of this kind are at a clear disadvantage in protecting themselves against injustice. We may be satisfied, as surveyors, with a system productive of a vast amount of professional work, but as citizens we must find it hard to justify.

Lest I should seem to be speaking my own mind only, let me quote a sentence or two from the Report of the Royal Commission (1901) on Local Taxation.

"In the absence of special statutory provisions re-
" specting the value of railways, an attempt has been
" made to value them in accordance with the Parochial
" Assessments Act, 1836, *i.e.* upon an estimate of 'the
" 'annual value' of each part within a parish. The
" difficulty of this task is twofold, for, in the first place,
" railways are never let on the terms contemplated by
" the Act . . . . and there is no other property resem-
" bling railways in such a way that it could be used
" for a comparative standard in estimating their
" value."

This is so obvious that the wonder is that no attempt has been made to substitute a more rational procedure, whether it has the result of increasing or decreasing the burdens which form such a constant topic in the speeches of railway chairmen at the annual meetings of shareholders. There are persons who are uncharitable enough to say that, had the grievance been a real one, the railway companies, with their powerful influence in Parliament, would have got it remedied long ago. That may be so, but what I am pleading for is the redress of an anomaly which reflects no credit on our system of local

taxation, and which may become, if it be not already, a source of serious injustice.

The subject has already received some discussion in this room, and therefore, having said so much, I content myself with citing the Commissioners' recommendation under this head, viz.: "The appointment of independent "assessors of railways entitled to receive such salary and "to employ such staff as the Treasury may approve, the "expense to be borne partly by the valuation autho-"rities and partly by the railway companies."

Speaking generally, it is impossible to doubt that the growth of local taxation must come, in course of time, to have a serious influence on the letting and selling value of property. I find, from the Report of the Royal Commission already referred to, that "the "increase in the total rates raised has been much more "rapid than the growth of population." The tendency of the one factor to overtake the other has been evident for the last 30 years. About 1891 the rates of increase had closely approximated. From that year onward the rate curve has mounted rapidly above the population curve, and now threatens to leave it far behind.

Behind, and strictly allied to this, is the serious growth of local indebtedness in recent years, much of it incurred, I fear, under official pressure as to standards of comfort, space, and convenience far beyond legitimate needs. No one who has observed the palatial asylums and isolation hospitals which are springing up all over the country, some of them only partly used, and some not used at all, will be at a loss to discover where a great deal of the money has been wasted. I also notice in this connection a growing tendency on the part of government authorities to insist on schemes of sewerage in small villages, involving an outlay quite incommensurate with any

advantages obtained. A check to this extravagance will ultimately be found in the increasing difficulty in obtaining loans at low rates for interest and repayment. Some of the great corporations have been in the habit of lending money to other public bodies, such as school boards and district councils, out of the accumulations in their own sinking funds; but many of these lending bodies are by no means so ready as they were to negotiate loans without looking narrowly into the security and ascertaining the amount of the previous indebtedness. I observe that the Public Works Loan Board last year advanced £5,626,186 on the security of local rates at £3 5*s.* 6*d.* per cent. as compared with £3 3*s.* 6*d.* per cent. in the year 1901-2.

It is worthy of notice in this connection that the unremunerative debt of the London County Council is now 7½ millions more than in 1889, and this sort of thing is going on all over the country.

Municipal trading, another branch of the same subject, should be narrowly watched by the legislature. It represents, in its extreme forms, an attempt to lighten the burdens on the ratepayers resulting from crude legislation on such subjects as rivers pollution, sewage treatment, and what not—legislation in many cases far in advance of sound knowledge and practical possibilities. My own town (Worcester) was compelled fifty years ago to turn its sewage into the Severn. We are now peremptorily ordered to take it out again, despite the fact that no trace of organic impurity is discoverable five miles below the city.

There cannot be a doubt that many modern phases of municipal trading are quite indefensible from a business point of view. The control of the water supply is clearly a matter which should rest with a public body. As much

may perhaps be said for tramways, but I doubt the policy of going further. Gas supply and electric lighting are, in my opinion, better in the hands of private companies, who are free from the kind of pressure on the part of employees which has such a tendency to increase the cost of production.

But these are matters which lie on the borderland between legitimate and illegitimate forms of public trading, and diverse views may very well be held with regard to them. It is a very different thing when public bodies betake themselves to such forms of commercial enterprise as telephones, hydraulic power supply, cold air storage and ice supply, laundries, and Heaven knows what besides, while, to make matters worse, there is, except in one or two places where special Acts exist, no effective audit of the accounts of the large provincial corporations, the supervision being little more than a verification of totals, by a person appointed under the Municipal Corporation Act, 1882 (who must himself be a member of the town council and be nominated by the mayor), and two elective auditors, neither of whom need be a professional accountant.

The dangers of such a system are obvious, and the select committee which sat this session suggest, in a rather timid interim report, that the time has come for a proper audit by a duly qualified accountant, acting under the supervision of the Local Government Board.

I have referred to this subject at some length, because it is closely allied to the general question of local taxation, which is calling aloud for reform.

The subject of our roads may appear trivial, but I cannot help thinking that we are on the eve of great changes which will have a considerable effect upon them throughout the country. For the purposes of haulage,

the horse seems doomed to disappear, as in the early railway times when his days were held to be numbered. Whether we like it or not, the motor and the traction engine are about to take possession of our highways, most of which, suitable enough for traffic of ordinary speed or weight, are very ill adapted for the swifter and heavier forms of locomotion which are apparently imminent. Many of our roads will have to be increased in width. Awkward corners will have to be rounded off, gradients made easier, and road surfaces improved. This, if my forecast be true, will involve extensive dealings with contiguous property and much readjustment of boundaries, providing ample work for surveyors.

Perhaps some may venture to prophesy that, before the century is out, a horse will be as rare a sight as a great bustard; that at the pace at which things are going there will be no safety for the horse in the roaring tide of evil-smelling engines which will throng our highways. It is even rumoured that the lazy barges which creep along the almost abandoned waterways of the southern counties are to give way to fast cargo boats competing with the adjacent railways. Whether life will be worth living under these unpleasant conditions is a question which exclusively concerns the younger men among my audience this evening. Possibly it may become the fashion, fifty years hence, for jaded country people to come to London for rest and quiet.

I had written thus far when my attention was called to the Report and evidence of the Departmental Committee on "highway authorities and administration," appointed by the Local Government Board, apparently at the instance of the Roads Improvement Association, acting on a suggestion of Mr. Balfour's. The evidence before this Committee, and notably that of Mr. W. R. Jeffreys,

gives voice to what I had already stated as to the imminence of the demand for the improvement and widening of our main roads, and for the construction of relieving roads at points where the traffic has become, or threatens to become, so congested as to render the roads impossible for the lighter kinds of vehicles.

The total mileage of main roads in this country (exclusive of those comprised in the county boroughs) is 26,598 miles, of which there are 3,819 miles in the urban districts and consequently under sole control of the urban authorities, and 22,779 miles in the rural districts under the control of rural district councils. As a consequence, there is no uniformity of administration and no probability of conjoint action. Take an example. It appears that the great North Road, from London to Edinburgh, is divided for administrative purposes among 72 authorities, who, on no possible assumption, would be likely to co-operate for the purpose of widening or improving that great artery of traffic.

This is only one instance. Cases might be cited all over the country, and if, as seems likely, the widening of the existing main roads and the provision of new trunk roads is rapidly becoming necessary for proper intercommunication, one is forced to the conclusion that the Committee are right in their suggestion that the great highways should be removed from the control of the present subordinate authorities and placed under the jurisdiction of county highway boards, and that certain highways, which are of more than county importance, should be declared to be "national" roads, maintainable out of Imperial funds.

One proposal before the Committee was that the provision of new trunk roads might be left to private enterprise, and that the inducement to the undertakers

to invest their money would be found in permitting them to acquire, by compulsory powers, a strip of land (modestly put at a quarter of a mile wide) on each side of the road, which they could sell for building purposes.

I do not know how the adjoining owners would relish the prospect of this alienation of their frontages.

Except by the reintroduction of the system of tolls, which would be intolerable, there seems no way of meeting a demand for new trunk roads but by the expenditure of Imperial funds or by the imposition of the abandoned "van and wheel tax," to which so much exception was taken when it was proposed as a feature of the Budget some years ago.

We are told that there are already 10,000 motor cars on the roads (to say nothing of traction engines), and that 10,000 more are in course of construction in this country. If this be so, and I have no doubt it is the case, the improvement and widening of the roads must soon form the subject of comprehensive legislation, for the problem has already become acute in suburban districts, and will rapidly become so all over the country.

Before I conclude I must say something about our Institution, to which we are all proud to belong.

Not only shall we soon number 4,000 of all classes from every part of the United Kingdom, but there are abundant signs that we are about to have a considerable influx of Members from our colonies. The Council are considering the desirability of holding branch Examinations in South Africa, for building and quantity surveyors, many of whom have expressed a wish to be connected with The Institution. In fact our progress has been, and promises to be, one of uninterrupted success; but success has its dangers as well as its triumphs. There is

the temptation to rest and be thankful, than which nothing can be more fatal to continued prosperity. There is the opposite danger of a restless dissatisfaction because things are not other than they are, and are not theoretically perfect. What is in this world?

The foundations of this Institution have been laid deep and strong by those who presided over its early destinies, but the time must come when the control will pass into the hands of others, who will do well to lay to heart the advice which I give them to proceed in all things with caution and moderation, and above all to avoid sectional jealousies which have not the general welfare in view.

We have lately introduced certain modifications in our by-laws. Some of these are aimed at unworthy practices, happily limited to a few, but from which any self-respecting profession must purge itself, if it is to stand well in the public esteem.

The introduction of an alternative title is a measure of protection against those who, without warrant, arrogate to themselves professional descriptions which do not belong to them. Whether the new title of "Chartered Surveyor" will or will not commend itself to the majority of the Members remains to be seen, but of this I feel certain, that no one who has once adopted it will willingly divest himself of it again.

One word more and I have done. May I appeal to our Members to do their utmost to provide Papers for our Meetings. The man who possesses special knowledge does better for himself by giving it out to others than by keeping it for his own exclusive use. The placing it at the disposal of others becomes an investment which yields a threefold return—the adding to the general stock of knowledge, the widening of the writer's own

views, and, shall I add, the enhancement of his reputation among his fellows.

The CHAIRMAN said it gave him the greatest pleasure to propose a most cordial vote of thanks to the President for his able and interesting Address, in which, in dealing with a great number of topics, he had embodied the results of his long experience in a way to render it a most valuable addition to the *Transactions.* He was sure all would agree in acknowledging their deep indebtedness to the President for the great labour and trouble he must have bestowed on the preparation of such an Address, and for putting into so lucid and interesting a form the views and opinions founded on his long practice and wide experience of the profession.

He would ask the Members, in according this vote of thanks, also to express their sincere sympathy with the President in his illness, and join him in a fervent hope that at their next Meeting his benign and kindly face might smile upon the proceedings. He felt that The Institution was singularly fortunate in having, to preside over its deliberations for the next year, one who was so justly and so universally respected and esteemed, and who possessed such an extended and, perhaps, unique experience.

Mr. CHARLES BIDWELL (Vice-President), in seconding the vote of thanks, said he was sure everyone would agree that The Institution was indebted to the President for a most able and excellent Address, which was rendered still more interesting by the vein of kindly humour running throughout it. It was a matter of very deep regret that Mr. Buck could not occupy the chair on that occasion, and he fully concurred in expressing a hope

that he would speedily recover complete health and be present to preside over subsequent Meetings and discussions.

Many important subjects were touched on in the Address, such, for instance, as the question of the labourers leaving the land, which must affect everyone practising, as he did, in the country. His own opinion was that agricultural labour was passing through, more or less, a transition state, partly as a result of the Education Act, and partly in consequence of the want of improvement in the housing of labourers.

A young married man, settled in a good cottage, who had cultivated his plot of ground, and planted his trees, felt himself, so to speak, anchored to the place, in which he naturally took an active interest. Village reading rooms, where men could meet in the evenings and enjoy harmless recreation, afforded a great inducement to the labourer to remain contentedly on the land.

He did not propose to discuss the Address in any way, but ventured to say it was one which would add very materially to the value of the published *Transactions.* There was in it an immense deal of that strong common sense which one would expect from a man of Mr. Albert Buck's standing, ability, and wide experience of the management of property in the country.

The vote of thanks having been put and carried unanimously, the Meeting then adjourned.

PAPER 291.
No. 459.

INDUSTRIAL DECENTRALISATION, AN IMPORTANT FACTOR IN THE SOLUTION OF THE HOUSING PROBLEM.

BY HERBERT T. SCOBLE, PROFESSIONAL ASSOCIATE.

Read at the Ordinary General Meeting of THE SURVEYORS' INSTITUTION *on Monday*, 23rd *November*, 1903.

ALBERT BUCK (President) in the Chair.

COUNCIL GOLD MEDAL.

Before commencing the business of the evening, the President announced that with a view to encouraging the reading of papers at the Ordinary General Meetings, the Council had decided to award a Gold Medal for the best Paper, if of sufficient merit, read by a Member of The Institution during the session.

Mr. Scoble then read his Paper as follows:

A careful consideration of modern industrial competition, an unimpassioned, and, as far as possible, unbiassed view of the many causes contributing to commercial success or failure will bring into prominence many aspects of this exceedingly complex question, and among them some with which the surveyor is specially qualified to deal.

The alleged want of adaptability to meet the most diverse foreign demands may hold good in some cases, but is by no means universal; the fiscal question, as such, is outside his province, and factory legislation affects his work but indirectly and remotely.

In the scrapping of machinery and the employment of electric driving he is interested, and on trade unionism he has something to say, having had experience of it in the building and allied trades.

The erection of factories in the country and the many problems connected therewith are, however, different from the foregoing and concern him closely, and therefore it is that I venture to introduce to your notice to-night "Industrial Decentralisation." As, further, it appears to me that by the transference of industries to suburban or rural districts, the pressing needs of the labouring classes with regard to housing and, incidentally, the cultivation of the land, are in a fair way of being met, I have added as a sub-title "an Impor-" tant Factor in the Solution of the Housing Problem." I propose, after reviewing past conditions, to refer in the first place to the literature bearing on the subject, and then to compare the present conditions of town and country in respect to factories and labour. Reference will be made to instances of decentralisation, and to its effects: a few words anent its bearing on agriculture, a note on trade-unionism, followed by the conclusions to be drawn, and I shall weary you no longer. The present is a singularly opportune time for the discussion of any subject related to the fiscal question and the housing problem, and if my somewhat hastily penned remarks thereon elicit the views and criticisms of others and tend towards the formation of definite opinions, backed by weighty reasons, there is

some hope of more uniformity, and therefore greater success in the practical treatment of these matters.

Review of Past Conditions.

A preliminary word may be allowed on the conditions that have prevailed hitherto, and which will not become altogether obsolete for many a long year. Time does not permit of an historical survey of the gradual growth and development of our great manufacturing industries, a study of the evolution of a complex factory from a single room with two or three craftsmen working therein, or a statistical comparison of the continued increase in the number or in the size of town factories. With the introduction of steam power a force was placed at the disposal of manufacturers which revolutionised production, and we have witnessed ever since a gradual displacement of manual labour. The gospel of the "division of labour," the growing demands of the workers and the slow but sure development of factory legislation, have all contributed to make the employment of labour-saving machinery not merely an advantage but a prime necessity. Our pre-eminence in production has of late been seriously assailed, and our rivals over seas have had the inestimable advantage of profiting by our experience, gained by many successes, and also by a certain number of failures. Not only that, but, starting later in the field, they have been able to employ much newer plant and better appliances. I would refer as an example to one of the most important matters, viz., the use of electricity. Works designed and equipped for steam power cannot always be adapted to electric driving without incurring an expense that counterbalances the benefits obtained. Thus, though it is granted that electric driving is much cheaper, it has not been possible

to adopt it so extensively as might be desired. On July 20th of this year a question was asked in the House about high-tension overhead wires. The President of the Board of Trade stated that he was prepared to sanction the use of bare overhead wires, considering each case on its merits, without reference to any model regulations. It had always been understood formerly that the Board of Trade's rules practically prohibited the use of such live wires: there was no case in which permission had been granted for their employment, and it was felt that manufacturers were unfairly handicapped as compared with their competitors in the United States, Germany, France, &c. Much more might be written on similar lines, but I think I have shown that manufacturers were penalised by the difficulty of adapting their work to the most modern methods, and by antiquated State regulations.

Criticism of Literature bearing on the Subject, with special reference to the "Garden City" Project.

A valuable contribution to the subject is Mr. Wm. L. Madgen's Paper on *Industrial Redistribution*, read at the Society of Arts, on 12th February, 1902. The author shows very clearly that the present devices to overcome the difficulties (and they are many) attendant upon overcrowding—the erection of large municipal tenement houses for instance—serve rather to accentuate than diminish the evil complained of.

He criticises the parochial spirit displayed by those municipal bodies which are endeavouring, apparently, to provide for so many of the wants of modern civilised life—trams, electric light and power, &c., and says that

the "boundaries were fixed at various periods with "reference to the jurisdiction of ecclesiastical authorities, "school boards, sewage commissioners, and general local "administrators. Sometimes the areas coincide; very "often they do not. They have no natural reference "whatever to such matters as industrial development or "the housing of the working classes; and they were "certainly not designed for the purpose of plotting out "the most suitable areas for the economic distribution "of water, or gas, or electricity, or for the provision of "mechanical means of transport. . . . . And to this "day, notwithstanding all the developments of science, "so great is the inertia of independent thought, that we "still find our legislature complacently ministering to "the view that, because a certain area has a local "government system, therefore it is fitted for an elec-"trical supply system." Mr. Madgen's view is that in the existing circumstances labour is less efficient than it might be, that the stamina of the people is being reduced, and that owing to municipal monopolies, &c., the conditions affecting our manufacturers compare unfavourably with those in force with our rivals overseas.

Garden Cities of To-morrow is the attractive title given to the third edition of Mr. Ebenezer Howard's much-talked-of book, and as a company has been formed and a site secured to carry into execution the ideas presented in the volume, it is of some importance to examine the scheme, to see if it possesses such features as should ensure ultimate success. Town and country are likened to two magnets, and it is conceded that the superior attractive power of the former accounts for the congestion of our urban, and the depopulation of our rural, districts. The proposition set himself by the author is to construct a "town-country magnet," or in other words

a settlement possessing the advantages of both town and country. A description of the proposed city is given, and although it is intended to be merely suggestive it will, I think, be useful to look at one or two of the details enumerated. For instance, "Six magnificent "boulevards—each 120 feet wide—traverse the city from "centre to circumference, dividing it into six equal "parts or wards. In the centre is a circular space con- "taining about five and a half acres, laid out as a beauti- "ful and well-watered garden; and, surrounding this "garden, each standing on its own ample grounds, are "the larger public buildings—town hall, principal "concert and lecture hall, theatre, library, museum, "picture gallery, and hospital. The rest of the large "space encircled by the 'Crystal Palace' is a public "park, containing 145 acres, which includes ample "recreation grounds within very easy access of all the "people. Running all round the central park (except "where it is intersected by the boulevards) is a wide "glass arcade called the 'Crystal Palace,' opening on to "the park." There are "5,500 building lots of an "*average* size of 20 feet by 130 feet—the minimum "space allotted for the purpose being 20 by 100." "The Grand Avenue," which is situate about midway between the central park and the circumference, is 420 feet wide, and as if to duly impress us with the significance of this dimension, a footnote informs us that the width of Portland Place, London, is but 100 feet. "On the outer "ring of the town are factories, warehouses, dairies, "markets, coal yards, timber yards, &c., all fronting on "the circle railway, which encompasses the whole town, "and which has sidings connecting it with a main line "of railway which passes through the estate. "The "smoke fiend is kept well within bounds in Garden

"City; for all machinery is driven by electric energy, "with the result that the cost of electricity for lighting "and other purposes is greatly reduced." When once the city has its full complement of inhabitants no further settlers will be allowed, but a like town will be established at some little distance away. It is also contemplated that the productiveness of the estate would be increased by a well-devised system of sewage disposal.

It is Mr. Howard's opinion that the generally called "unearned increment," or, as he prefers to term it, "collectively-earned increment," should go to the community. I must confess that it is not quite clear on what basis the original outlay on any holding is to be fixed, but, apparently, a considerable increase in the rents may be looked for, and this will be applied in relief of rates. The sites for manufactories and shops are to be leased *at £2 per employee*, the home building lots at £6 per lot, and it is assumed that the tenants on the agricultural portion, in view of the adjacent market for their produce, would be prepared to pay 50 per cent. more than their present rent for contributions to rates and sinking fund, or a total "rate-rent" of £1·95 per acre instead of £1·3.

Having referred to some of the features dwelt on in the book, a word or two of criticism would suggest itself. To deal with the points selected, in the order in which they are given, apart from the expense of construction, cannot be ignored. The annual cost of weeding six 120-feet boulevards would astonish the author, as it cannot be supposed that the traffic of 32,000 people would keep the surface free from plant life. The garden in the centre and the public buildings enumerated, together with the Crystal Palace, will evidently be entrusted to

one of the genii from the Thousand and One Nights, as no provision is made for them in any other way; and 5,500 building lots of an *average* size of 20 × 130 feet suggest small property only, and although a virgin site is to be used, crowding, if not overcrowding, is begun at once, as, at the rate given by the author himself (5·5 per lot), the population per acre is 92 for the building plots *per se.* The "Grand Avenue" is, be it granted, "magnificent," but unnecessarily so, as it serves no very definite purpose. The factories, &c., are to be within the encircling railway, but why not outside? Extension would thereby be facilitated, and, unless the railway is intended to form the boundary of the city in the place of the old-time city wall, it is difficult tc realise the object to be gained by its assigned position. If electricity for power and lighting is to be produced with any regard to economy, the plant must in the first instance be capable of supplying the limit demand (who can say what that would be?) and before some definite idea of the total want can be ascertained the growing needs of the first inhabitants must be met. Another garden city at a little distance sounds well, but in my opinion criticism on that point can be deferred till the first is crowded. The increase of productivity by the utilisation of sewage is a chimera at present, at any rate on commercial lines.

I fail to see what inducements are presented to the manufacturer, the shopkeeper, and the artizan to move to Garden City. I am aware that an estate has been purchased near Hitchin in Hertfordshire, and as one of those interested in, if not exactly an active supporter of, the scheme, I was present at the private view and luncheon on October 9th of this year. From the speeches on that occasion, one would have supposed that the

project was already achieved. A great deal was said on the housing question; it is no difficult matter to dilate on such a topic, to stir the feelings of one's audience by a recital of present woes, and to obtain a meed of applause by reference to the scenery amid which in future the toiler will move, and work, and have his being. But the business side of the affair was relegated to the background. The first Garden City, Limited, has a nominal capital of £300,000 and has purchased or contracted to purchase some 3,800 acres of agricultural land, practically free from buildings. It was announced at the meeting that some £75,000 had been subscribed to date—roughly about half the fee simple value of the land—and that the company was in negotiation with several manufacturers. There is an old adage, which still holds a place in our midst, about first catching the hare. Can it be seriously contended that the difficulties that must be surmounted have as yet been even encountered? To a manufacturer without command of capital, a site at a low rent, plus all the other inducements offered would no doubt be tempting; but who is going to build his factory? A shopkeeper or an artisan might be attracted by the scheme, but who would furnish funds for the erection of shop or cottage, or guarantee a continuance of custom or employment? It cannot be that the company itself proposes, on its small capital, to do these things in addition to providing "gas, electricity, water, "siding accommodation, &c." (as per recent pamphlet), and presumably constructing roads (120 feet wide or otherwise), laying sewers, erecting the public buildings already referred to, &c.

The crux of the problem lies here, and its resemblance to other proposals is thereby established, viz., that the city must be complete in every respect and that, until all the

varied parts are working harmoniously together, nothing much worth doing can be accomplished.

To revert to the manufacturer and his view of the whole concern. So-called unearned, or collectively earned, increment will come into his own pocket if he buys agricultural land, and the cost of the land itself will add but little to his outlay in buildings, machinery, &c. If the money is forthcoming he may also establish a model village, but, in any event, if he ever seeks a purchaser he will see his money again and himself reap the benefit of any increased value attached to the land by virtue of his having established business premises thereon.

It may be urged, however, that the "Garden City," is merely the theoretical presentment of an idea, and that in carrying it out in practice, substantial modifications must be expected. In an appendix to the first edition of his book, Mr. Howard gives us some details of a novel system of water supply, and although this most entertaining chapter is now deleted, I think you will agree with me that the proposals of anyone who advances in all earnest such a fantasia, even though it be afterwards withdrawn, must be most carefully weighed, and if found wanting, condemned. It is by no means easy to convey within the limits of a paragraph or two an adequate idea of the complexity of the water supply scheme, as it is "at "one and the same time a system of drainage, of irrigation, "of transport, of motive power, of recreation, and of orna-"ment." I have not checked the figures printed, but give them for what they are worth, thus: 1,213,000 cubic yards of spoil are lying about from excavations for canal, storage reservoirs, building lots, shops, stores, factories, and subways (20 miles)! "This mass of material if piled "up so as to form a reservoir with a total area of 6 acres "at the top, and with a suitable slope towards the base,

"would rise to a height of about 100 feet"; assuming that the site of the reservoir were 40 feet above the lowest level on the estate, a fall of 140 feet is estimated: the summits would provide splendid views "and at night-"fall they could be cheaply illuminated with electricity "generated by the falling water." There would be "(*a*) "a low level reservoir of such a form as to serve also the "purposes of a canal; (*b*) a storage reservoir or reser-"voirs, and (*c*) a high level reservoir or reservoirs." Into the low level reservoir the estate would naturally drain, sewage being excluded: the one at the high level would receive its supplies from rain, and from water raised from the others by windmills, &c. (steam engines being held in reserve for calms!); and thus "the municipality "of Garden City would be able, at a comparatively small "cost, not only to supply the whole of its members with "water for ordinary, domestic, and trade purposes, but "also" (by virtue of the continuous fall from the high level reservoir) "with water power for driving machinery "and generating electric light, together with a large "body of water for transport purposes as well as for "boating, bathing, skating, &c. It would do all this, "too, in such a way as to effectually drain and irrigate "the whole estate, and to beautify the town in the most "remarkable manner." I entirely concur with the last phrase—"in the most remarkable manner."

It will come as a pleasant surprise to find that the author does "not think any engineer could estimate the "cost of the work set down, including the sinking of "wells, and laying pipes and mains, at more than £90,000." There are so many points that could be dealt with in this chapter that, in order to avoid useless speculation, I would ask you to consider one only, viz., the construction of the upper reservoir. If the soil is of a suitable

character for embankments it will cost a very large sum to obtain, but, disregarding that, the expense of raising it to various heights, from 40 to 140 feet, properly banking it in successive layers, &c., will be enormous.

I have consulted an engineer who has had special experience in moving large quantities of soil in railway embankments and reservoirs. I understand that about 2*s.* per cubic yard is a fair figure to state, without knowing more of the special circumstances of the case, if the use of the most modern appliances is assumed, and also the presence of the spoil in large masses. Taking, however, 1*s.* 9*d.* per cubic yard, so as to be on the safe side, it will be found that the earthworks to the high level reservoir alone, without anything for foundations, puddle wall, &c., will be over £100,000, or more than the amount given for this reservoir complete plus the service reservoir, low level reservoir (canal), wells, pumps, windmills (steam engines in reserve), water mains, &c.

There is an important alteration in the carrying out of the Garden City scheme so far, to which attention should be directed, and that is the reduction at one fell swoop of the belt of agricultural land by 44 per cent., *i.e.*, from 5,000 (6,000—1,000) to 2,800 (3,800—1,000) acres with no corresponding diminution in the size of the town. Many features of the original design have been eliminated, but there is still so much that is objectionable that I feel it my bounden duty to state that the attempt to construct a garden city as detailed is, notwithstanding manifold improvements, but wasting time and money in the pursuit of a will-o'-the-wisp, and delaying and discrediting by its inevitable failure true progress in industrial decentralisation.

The criticism of Garden City, in my opinion no whit

beyond the necessity of the case, has occupied so much time that I shall not bring under review any other books, but proceed at once with the main subject of my Paper.*

Comparison of Present Conditions of Town and Country as regards (*a*) Factories and (*b*) Housing of Labour.

(*a*) Factories.

Our position with regard to present conditions is that of impartial inquirers from the economical, rather than from the antiquarian point of view, and in the hope of introducing some order into a complex subject, I have taken three headings for separate consideration, viz.: (1) the disadvantages of towns; (2) the advantages of the country; and (3) exceptional cases.

(1) *Disadvantages of Towns.*

The contrast between urban and rural factories is so striking that anyone at all interested in manufacturing, and, indeed, many wholly unconnected therewith, cannot fail to have noticed it. The cost of land in any of our big centres is so great that floor upon floor is built, until by virtue of some building Act or by-law no greater height can be attained; in no other way is it possible to utilise a town site to the fullest advantage. It follows, therefore, as a matter of course, that the chief consideration in the erection of a town factory is to secure the largest amount of floor-space, and this must often be done at the expense, so to say, of light

* I understand that a Paper on the "Garden City" will be read here shortly, and it has therefore been suggested that any remarks on my criticisms of that scheme should be deferred till the discussion takes place on the project as a whole.

and air, of convenience in the handling of the raw materials and finished articles, and also of time and labour in the different stages of manufacture. Nor is it possible to have extensive yards attached to town premises—the cost is prohibitive; rates are very high and must be paid on a rateable value of no mean figure; insurance premiums are calculated not only on the risks appertaining to any business itself, but on the danger from adjoining properties, often of a hazardous nature, and are again necessarily high, as fire is likely to spread with rapidity in a many-storied edifice. Delays in transmission of goods, both in and out, are frequent, and may be attributed partly to the congested state of road, rail, and water traffic, and the enlargement of premises to cope with increasing trade is often impossible or can only be achieved at an expenditure out of all proportion to the intrinsic value of the additions secured. In old established concerns, more or less primitive arrangements are still in vogue for the production and distribution of power, and although it might not pay to "scrap" them, yet, were a complete re-arrangement possible, there is little doubt about the economy to be effected by the purchase of electricity and the employment of electric driving. Water, where used in any quantity, is an item of great expense, and the disposal of trade wastes is often a matter of difficulty: in some cases they are admitted into the sewers of the local authority, and in others excluded. The third report of the Royal Commission on sewage disposal recommends generally that the local bodies should provide sewers of a capacity sufficient to carry trade effluents, and that the manufacturer should be granted the right to discharge his waste products therein subject to reasonable safeguards and precautions.

(2) *Advantages of the Country.*

The low figure at which land can be purchased in the country (and by that expression must be understood land adjacent to small towns as well as strictly rural property) enables a manufacturer to erect premises in every way superior to buildings in large towns. Instead of the many-storied, the ground-floor factory is coming into being, having ample light and abundance of air, and so arranged that no unnecessary, and therefore costly, handling of goods is required. Yards, often of the greatest convenience and value, cost next to nothing. The rates, though in places nearly as high, are on a smaller rateable value, and insurance premiums are greatly reduced on account of the absence of contingent risk and the improbability of fire, as a conflagration spreads upwards rapidly, but sideways comparatively slowly. Delays in transmission cannot be altogether avoided, but should be minimised, and an extension of any one branch or department of the works can be made at a moment's notice at a moderate outlay and without interfering with the work in that or any other part. The site of a country factory would be chosen with some regard to the possibility of obtaining cheap power, and electric driving would be assumed from the outset. Water is generally obtainable either from wells or a local company, but the disposal of sewage, and, in some occupations, of trade wastes may occasion difficulties, and must be taken into account.

(3) *Exceptional Cases.*

The cases to which the foregoing comparisons do not apply, or in which, if pertinent, they are not of prime im-

portance, partake of a special nature. Thus, for instance, where the expense of distribution is a weighty item in the cost of the goods, it may be more economical to have a factory, though subject to many of the disadvantages enumerated, yet by reason of its central position, able to circulate its goods with minimum runs and therefore easily and rapidly. Or extreme quickness in the execution of orders or repairs may be required, in which case a central site is clearly indicated. Again, where female labour is almost exclusively employed, and when the number of hands taken on is subject to great fluctuations, it may at present be essential to keep closely in touch with those districts wherein such labour can be obtained. Further, some industries are capable of assimilating quantities of surplus produce of a very perishable nature, and as our central markets are often flooded therewith, an obvious advantage is secured. Enough has been said to show that there are numerous industries, each of which can, in some important particular, derive benefits from being located in a large town.

(*b*) Housing of Labour.

I do not propose to deal at great length with this part of my subject, and shall refrain from quoting statistics to establish the obvious, as is so often done: neither do I desire to approach it from a philanthropic or humanitarian point of view; my sole object being to show that it is "good business" for a manufacturer to secure labour which is housed under such conditions as make for the highest industrial efficiency. I again offer as a convenient arrangement the sub-divisions: (1) disadvantages of towns; (2) advantages of the country; and (3) exceptional cases.

(1) *Disadvantages of Towns.*

The first point which merits special attention is that, owing to a variety of causes, which for my purpose do not need to be considered, it is difficult to obtain "rooms" in or near manufacturing districts—the use of the expression "rooms," by the way, is very instructive. From figures I have been able to collect, it would appear impossible to secure accommodation at less than 2*s.* per room per week (3*s.* 9*d.* was the sum given me by a friend interested in social reforms, as an average figure); in the buildings of the Peabody Donation Fund, the rental per room is 1*s.* 11½*d.*, or with rates 2*s.* 3*d.* Similar results appear from a tabulation of figures given by certain workers at a factory in Bermondsey, and it will be admitted that, in basing my remarks on this sum, I am erring, if at all, on the right side. In overcrowded areas even a part of a room is made to suffice for a family, and rents go up at a much greater rate than the demand for rooms increases.

That loss of stamina, physical debility, and a high death rate, especially for infants, result should cause us no surprise. Neither ought we to be much astonished at the prevalence of drunkenness amongst manual labourers, for the home of such an one cannot be attractive, and the public-houses are only too alluring. When we examine the modern tenement building and find a population of 700 or more to the acre, need we be startled at the general decline in physical powers? True, we are told that overcrowding is not permitted, but there are two sorts of overcrowding—per acre and per room—and though the evils of the latter are patent, the insidious effects of the former, as far reaching in all likelihood, are not so easily detected.

The time occupied in travelling and the amount expended thereon, together with absence from the family mid-day meal, all militate against the modern notion of dormitory-towns. Even did no such objections exist, it must be plain that the opportunities for travelling by "train, tube, tram, and 'bus" are already used to the utmost extent, and that any further large development thereof might so overtax our already congested streets, &c., as to make confusion worse confounded. In the meantime, every increase in traffic facilities is helping to aggravate the evil, and the provision of working-men's dwellings by the London County Council and other bodies only encourages manufacturers to take advantage of labour cheapened by workmen's trains and by the utilisation of central building sites, in a manner which should give serious thought to all. To erect workmen's dwellings on land valued at £30,000 or more an acre is an economic error of no mean magnitude.

It is argued that with such a scheme, for instance, as the Clare Market, Strand, clearance, where at a cost of over £220,000, 750 people were housed (about £300 per person) the men must be near their work as they are required at such early hours. If a public body steps in to provide accommodation of a suitable character in a case of this nature it should be an essential condition that a reasonable return be required on the *total* expenditure—otherwise the owners of labour-demanding premises in the vicinity are being unfairly subsidised.

(2) *Advantages of the Country.*

A house to himself, which may be truly called "home," a garden or an allotment where pleasure and profit are combined, and the perpetual enjoyment of sunlight and

pure air, present a happy contrast with the lot of the town worker. Tram, train, or cycle place the artisan within reach of the amusements of town, and he has the satisfaction of knowing that his children are better off, physically and morally, in the country, than cooped up in some tenement building with only a paved yard to play in (and even then with flights of steps to be first negotiated) or in rooms whence they are turned into mean streets for their recreation. He himself can join the family at dinner, and by reason of proximity to his occupation saves many a fare and increases his leisure hours. From numerous inquiries I have made it would appear that the majority of workers are only too glad of the opportunity of securing work at outlying factories. The owners or managers of many places I have visited agree that their hands do not want to return to town, and there seems to be a growing feeling that "town "life" is much overrated. Many of the dwellings erected by builders in the vicinity of large works do not show much improvement on the back streets of our towns, but the brief description of two well-known industrial settlements given under "Instances of Decentralisation" (p. 52) will demonstrate that all the points of advantage detailed above can be secured, and that, be it noted, within the figure of 2*s.* per room per week.

(3) *Exceptional Cases.*

There will always be a percentage of human beings to whom town life has greater attractions than country life, and this percentage is naturally smaller in those classes whose town surroundings are more or less mean and squalid, but still it exists and must not be overlooked. Of other causes contributing to a preference for town, the chances of employment for the junior members of the

family, and the opportunity of attending technical schools are worth mentioning. One case was cited at the Eastleigh works of the London and South Western Railway Company, of a man who desired to return to Nine Elms on a vacancy occurring there, so that he might be near his relations. But whatever the reason, the fact remains that of workers who have had experience of our large towns and also of rural or semi-rural life, the majority prefer the latter.

Reference to Instances of Decentralisation.

An extensive list of removals to the country could easily be made, and one has only to think of one's own acquaintance to obtain (with most of us) a few examples. Printers and engineers have set the fashion, influenced largely no doubt by the lower rates of wages prevailing outside London and other of our largest towns, and many industries have migrated in part or are "on the "move." Firms whose names are household words have in many instances laid the foundation of their success by early grasping the underlying principles, and to avoid the risk of being considered an advertising contractor, I will mention only the names of Lever and Cadbury, who in any case must have been referred to. I have divided this part of my Paper under two heads, (*a*) Factories, and (*b*) Labour, with a description of the model villages of Bournville and Port Sunlight.

(*a*) Factories.

In treating of the erection and equipment of factories on sites where the value of the ground need not be taken into account, it is first of all necessary to divest the mind of the too familar town structure, and to sub-

ordinate all other interest to the one of primary importance, namely the economical handling of material. The principle of the American sausage-machine, as it might be termed, is, to my mind, the one that should ever be kept in view. A one-floor structure will be the type usually adopted, but, at times, it will be more advantageous to raise the raw material in one operation, and take advantage of the fall thereby obtained to facilitate the working of the various departments required to evolve the finished product.

I have already indicated many of the items to be considered, and, as "example is better than precept," now propose to describe briefly two factories I have had the pleasure of inspecting. Messrs. A. Ransome and Co., Ltd., specialists in wood-working machinery, formerly occupied premises in King's Road, Chelsea, and for many reasons (increase of business, inconvenience of premises, impossibility of securing additional land, &c.) decided to move, and bought a freehold site adjoining the goods yard of the Great Northern Railway at Newark-on-Trent. Raw materials are brought in on a siding of standard gauge (with a loop for empties) and pass over a weighbridge before proceeding to their assigned positions, viz., iron to the foundry, coal and coke to their respective bunkers, adjoining the gas-making plant and smithy, timber to the pattern and wood-working shop, &c. Castings despatched from the works must also pass over the weighbridge ere they can leave the premises. The offices are centrally situated—are on one floor, well-lit and spacious, and communicate with each other and with the foremen of shops by telephone. From the drawing office it is but a step to the pattern shop, and here one notices the 24-inch gauge railway, which pervades the place, and on which one man can transport five tons:

thus though the premises are somewhat scattered with a view to future extension, the time and labour spent in transit are negligeable quantities.

The pattern store follows, and is succeeded by the gas-making plant and power house, the smithy and the foundry. An overhead traveller of a capacity of 15 tons feeds direct into railway trucks, and thus, within five minutes of the first movement in the despatch of a heavy casting, it is loaded, weighed, and conveyed to the railway company's premises. The main shop is next reached, and one passes successively through the machine, fitting, testing, and painting and packing shops, in the last of which two trucks can stand on the 4 feet 8½ inches gauge rail, also joining the railway yard. The shops are well laid out; ample room is provided; light is obtained from the roof as well as through large windows; electric driving, controlled by many motors is universal; and, generally speaking, labour saving devices are everywhere apparent.

Century Works, Lewisham, S.E., the new premises of Messrs. Elliott Bros., compare in all respects favourably with the buildings (partly four and partly five-storied) formerly used by the firm in St. Martin's Lane, W.C. The telephone keeps them in touch with their London show-rooms and buyers generally, while so far from experiencing any delay in the preparation and despatch of goods, they have been convinced that orders are far more speedily executed. The materials employed and goods produced not being of a bulky nature, and provision for dealing with heavy weights being therefore unnecessary, it was possible to utilise a site possessing no special facilities for transport. As compared with the previous case, it will be seen how the needs of various manufacturers differ on even funda-

mental points. The works are on one floor, with the exception of the offices and an upper part to the store-room. It would be somewhat of a tax to ask you to follow without plans, &c., a detailed description of the new factory, and I have in consequence selected a few points of special interest. It may seem almost incredible, but I was assured that the saving in the item of insurance alone was, to use the firm's own words, "almost "a sufficient inducement by itself to undertake the "move." The risks at present are very small and the wood-working departments and timber stores are kept at a distance of 30 feet from the main shops, but the chief factor in the enormous saving effected is the absence of contingent risk. Saw-tooth roofs and large windows ensure an ample supply of light—no mean advantage with work on delicate instruments—the many machines in use have adequate floor space, and the whole of an order can now be packed and forwarded together; whereas formerly, so cramped were the premises, that but a small portion of any large consignment could be despatched at one time. Packing-cases are made by their own men, and can be stored when returned; the saving on this branch of the work may be estimated when it is borne in mind that the cases could not be manufactured at St. Martin's Lane, nor kept there when returned, and that therefore expensive cases suitable for repeated use had to be sold at firewood value. It goes almost without saying that electric driving is in force, that the comfort of employees is studied to an extent impossible before, and that in all respects a concern well fitted to cope with competition, both at home and abroad, has been devised and brought into being.

(*b*) LABOUR, WITH A DESCRIPTION OF THE MODEL VILLAGES OF BOURNVILLE AND PORT SUNLIGHT.

As it is rather the exception than the rule to find employers of labour alive to the interests of their work-people (and incidentally also their own interests) on the housing question, a word of explanation is perhaps required before starting the description of model villages. Usually the problem of accommodation is left to settle itself, and, as before remarked, the dwellings erected under such circumstances show little, if any, improvement on those with which we all are so familiar in towns—front elevation from the road, back ditto, and roof plan from the railway, all to the power of "x."

The two examples here treated present a striking contrast to that type of house, &c., and it is noteworthy that, though each was started on its own lines and from different motives, yet each has succeeded. The lessons to be drawn will be dealt with when the effects of decentralisation are considered.

Bournville dates from 1879, but it was not until 1895 that any great progress was made with the village. It is now administered by a trust, and it is satisfactory to learn that, notwithstanding the provision of large gardens, the erection of semi-detached houses, or of groups not exceeding four in number, a return of 4 per cent. is secured after payment of all outgoings. In constituting the Bournville Village Trust, the founder, Mr. George Cadbury, stated that he was desirous of alleviating the evils arising from insanitary and insufficient accommodation, and of securing to workers in factories some of the advantages of outdoor village life, with opportunities for the natural and heathful occupation of cultivating the soil. The operations of the Trust not

being confined to any one locality, various suggestions as to the use to be made of the funds were put forward, among others:—such dwellings as may be erected to occupy about one-fourth part of the sites on which they stand, the remainder to be used as gardens or open spaces, and factories and shops to be limited to one-fifteenth of the total area of the estate. From a private census taken in December, 1901, I learn that of the householders living in Bournville 41·2 per cent. work in Messrs. Cadbury Brothers' factory, 40·2 per cent. in Birmingham, and the remainder, 18·6 per cent., in the villages of King's Norton and Selly Oak. It will be observed that the provision of comfortable homes and good gardens is sufficient to attract numbers of workers in Birmingham, and that the gardens are successfully cultivated is borne out by the following comment from the *Economic Review*:—"There are 43½ acres under "cultivation, and at the ascertained average yield per "acre of £59 8*s.* 8*d.* per annum, this gives a total of "£2,585 7*s.* 0*d.* per annum. Under ordinary methods of "farming the yield was previously less than £5 per acre "per annum, that is, the total yield of the 77 acres which "are at present opened out used to be about £385 per "annum. Thus, at the present time these 77 acres "produce more than six times the value of their former "produce, and in addition, at the same time, house "under ideal conditions a population of nearly two "thousand people." The yield per acre was worked out from the return per garden which, after making allowances for all outgoings, showed a net gain of 1*s.* 11*d.* per week.

The average garden covers some 600 square yards, and the estate gardeners prepare and plant it, so that the tenant on entry has not to convert a howling wilder-

ness, brought into undue subjection in parts by building operations. The rows of fruit trees at the end of the gardens form a very pleasant screen between opposing backs.

The cottages built before 1901 have mostly parlour, kitchen, scullery, and three bedrooms, and the usual conveniences, while some of the larger houses have an extra bedroom and a bathroom. Latterly, several cottages of a different type have been erected, each containing one large living room, scullery with bath embedded in the floor to economise space, three bedrooms, and in some cases an attic. The rents range upwards from 5*s.* 6*d.* per week, rates included.

At the model village of Port Sunlight, near Liverpool, out of the 230 acres acquired by Messrs. Lever Bros., some 140 are devoted to the village, the ravines kept as open spaces occupying no less than 25 acres. About 600 houses have been erected, and allotments, close to the cottages, can be had at a rent of 5*s.* per annum for ten perches, and the free use of water. The general arrangement of the dwellings is in groups or blocks, with paved yards at the back and rough roads for dust removal, &c., and small gardens in front kept in order by the firm. Some £350,000 has been spent, including institutions, clubs, &c., and all the necessary roads and the outlay on parks. Mr. W. H. Lever said in an address given some time back, "The tendency at Port Sunlight has been "during the last few years, for our architects to become "more and more elaborate in architectural design, and "more and more extravagant in the use of costly building "material. Although this has been done with the most "happy results, I rather look upon such buildings as "teaching merely what can be done with unlimited "money." This, no doubt, accounts largely for the

increase in the cost of the cottages from £200 to £330, and of the parlour cottages from £350 to £550 each in 13 years. If 3 per cent. interest, and ½ per cent. depreciation, plus rates and taxes, were taken, the gross rental would be 8*s.* 3*d.* per cottage per week—this is assuming a maximum number of 10 cottages to the acre, and making due allowance for proportion of parks and recreation grounds. Instead of that, Messrs. Lever Bros. forego all interest, so convinced are they that more than a commercial return comes to them in increased efficiency of labour. They term it "prosperity sharing," and their undoubted success entitles them to demand a fair consideration of their contention that it more than pays them. At 4 per cent., it will be noted, £15,000 is given away annually to their employees. Many profit-sharing firms also distribute large amounts, and it may, I think, fairly be questioned if any other mode of sharing gains could produce better results.

The cottages are mainly of two types—with living room, or with parlour and kitchen. Each has scullery, pantry, bathroom, and three or four bedrooms. The w.c.'s, coal stores, and dustbins are at the end of the small enclosed yards, and as a rule the buildings encircle allotment gardens. The rents for the cottages are 5*s.* per week, and this suffices for all outgoings, even a proportionate part of the upkeep of parks and roads. It has been estimated by the firm that, with the most economical expenditure on repairs and maintenance, the rental of a cottage to cover these two items and rates and taxes would be 3*s.* 6*d.* per week, and of a parlour house 5*s.* 6*d.* per week.

Much has been done both at Bournville and at Port Sunlight for the social well-being of the villagers, but as the provision of clubs, institutes, &c., is often undertaken

where no housing is attempted, and even in large towns, no very minute description is called for. In the former village will be found, for the girls, a recreation ground of about 12 acres in extent, with tennis courts, cricket and hockey grounds, a pleasant tree-shaded lawn, and a large pavilion. A big swimming bath is in course of erection for them, and Bournville Hall, formerly a family residence, is now used as a boarding-house, and accommodates about 40 girls. For the men, some 14 acres are set apart as recreation ground, and there are also two other fields, each of about 7 acres, for football. In addition there is an open-air swimming bath, an excellent pavilion, and a good gymnasium. There are also separate clubs for men and youths, and a playground for infants, while ample provision is made in the factory itself for dining rooms, &c. "Ye Olde Farm Inn" has no licence, and the founder of the Bournville Village Trust desires to exclude as far as possible the liquor trade, but if in the unanimous opinion of the trustees a modification of such rigour appears to be desirable, the deed empowers them to make arrangements for the sale of intoxicants.

At Port Sunlight a Girls' Institute is housed over the meat, groceries, and draperies stores of the Employees' Provident Society. Hulme Hall is a dining-room seating 1,500 girls, though it is at times used for horticultural shows and other exhibitions. The men have a bowling green, an open-air swimming bath, a gymnasium, cricket and football grounds, and a dining hall, wherein concerts can be held. For joint use there are a technical institute, free library and museum, schools, an auditorium or open-air theatre for 2,400 persons, and a church (in course of erection). The Bridge Inn is under the control of the Liverpool and District Public House Trust Company,

Limited, and a licence was obtained this year on a vote of the residents (472 to 120).

The roads in both settlements are tree-bordered, 42 feet in width at Bournville, and 40 (in one case 60) feet at Port Sunlight. Bournville Station serves the former village, and trams to Birmingham are but a short distance from the estate. Birkenhead and Liverpool are within easy access of Port Sunlight, as Bebington Station and the tramway terminus are at the northern end of the village.

Consideration of the Effects of Decentralisation as regards (*a*) Manufacturers, (*b*) Workers, and (*c*) the Community.

I have endeavoured to lay before you in some detail various points of contrast between town and country, and, having supported my contentions by referring to what has been done both as regards works and the housing of labour, it is now my purpose to draw your attention to the effects of the foregoing. Though there is necessarily some overlapping of argument, I have, for clearness sake, regarded the matter from the respective standpoints of (*a*) manufacturers; (*b*) workers; and (*c*) the community.

(*a*) Manufacturers.

The most successful appeal will be made to the manufacturer, if it can be shown to him that the cost of production will be materially lessened by establishing his factory in the country. No one item alone would, as a rule, serve to demonstrate the advantage to be derived by the suggested change of habitat, but the number of small economies to be effected, coupled with

the actual savings on large outgoings, will clearly indicate that if he wishes to keep abreast of the times he must move, and that right speedily. The land on which the buildings will stand is cheap or the rental is low, and the rates the manufacturer pays are, in consequence, less, as the local rates are probably lower, and the rateable value much less. Ample space permits of workshop design giving light and air, the economical application of motive power, the provision of most useful yards and room for extension of premises. A ground floor factory needs no expensive and unnecessary hoisting, &c., of goods, and, if carefully designed, can be relied on to entail but a minimum of handling both of raw material and finished products. Insurance premiums will be greatly reduced, and a lower trade union rate of wages already prevails in the country. Increased efficiency in labour may be expected, for the country factory must needs be a more healthy place in which to work, and the attention paid now-a-days to heating, ventilation, and the admission of daylight will be duly rewarded by the greater staying power of the hands employed. It will also be possible, when making so far-reaching a change as a migration to rural districts, to discard antiquated methods and machinery in favour of the most modern equipment. Too much has been made of the readiness of our Yankee rivals to scrap machines the moment a better model is in the market. Labour is more valuable there for one cause, but the chief reason for the procedure is the quality of the machines. They are made of soft metal, "calculated" to last only a few years, and must in any case reach the scrap heap at an early date. The British manufacturer is very much alive to the possibility of introducing better machinery, but, unless the improvements made are unusually great, the old plant can and

will give satisfactory results. Electricity by meter will in many cases supersede the more expensive and cumbersome production of power on the premises.

Motor road traffic will have an important influence on many an industry. In an interesting Paper, *Motor Transport for Goods*, by Mr. Douglas Mackenzie, read at a meeting of the Society of Engineers on October 5th last, a tabular statement is given comparing the costs of working motor lorries with the sums spent in horse-haulage. It would appear that with this type of vehicle the minimum load for profitable working is about 5½ tons. The subject is a wide one, but may well be summed up in the author's words:—"The progress of mechanical science is constantly "changing the economic conditions, and the circum-"stances of to-morrow may be widely different from "the circumstances of to-day. Better engines, cheaper "fuel, less legal restrictions, and the accumulating "experience of engineers, will rapidly increase the "range of useful employment for motor vehicles." The continued growth of electric tramway systems must also be taken into account as affecting both labour and the transport of goods. The opening of new works in the country will doubtless afford better opportunities for the introduction of some system of profit-sharing or the more modern "premium system of remunerating labour," to the mutual advantage of the factory owner and the worker.

The chief result is that the manufacturer will be able to produce more cheaply. Less costly goods will compete in the home, colonial, and foreign markets with a greater measure of success, and it follows that in many cases business will increase. A more certain and quicker execution of orders can be relied on, as the factory will

be capable of turning the work out more smartly and will be practically independent of help from sources outside.

At the Engineering Conference in June last, the opening address by Mr. J. C. Hawkshaw, President of the Institution of Civil Engineers, included a reference to the subject of this Paper, and contained the following remark:—"I know of one firm of manufacturers of "machinery who have recently removed their long-"established works from London to the country, and "were enabled, by doing so, to reduce their prices by "20 per cent., which enables them the better to com-"pete in foreign markets." This is no isolated case, and, coupled with the general review I have endeavoured to put forward, should demonstrate that there is, at any rate, good ground for inquiry into the economic position of a very large number of manufacturers.

(*b*) Workers.

This is neither the place nor the occasion to dilate on the moral improvement (using the term in its widest application) that may, not without reason, be expected in the labouring classes when removed from slums to decent industrial settlements on the land. In the *Contemporary Review* for July last, an account of life in a rope factory is given by the Hon. Mrs. Bertrand Russell, who describes her four days' experience therein. Most of the girls spend a large proportion of their slender earnings at the public-house, and "all their "social events are celebrated with drink—weddings, "birthdays, even funerals, and all holidays mean a "drinking bout." Bread and butter and tea form their staple fare. The writer asks how these girls are being prepared for the vitally important duties they will have

to undertake as the mothers and home-makers of the future. To that very pertinent question no reply is vouchsafed, but the hope is expressed that this demonstration of their needs will help towards better education, food and pay. "Above all, the girls must "in some way be guarded from the temptations to drink "that so fiercely beset their lives." This is unfortunately no unique instance, and may be taken as more or less representative of the state of things prevailing to a large extent among male and female workers alike. Is industrial efficiency possible when labour is underfed, and when far too much drink is consumed? Is it probable, where the surroundings both at home and at work are of the meanest description? Will the coming generations have the necessary stamina to carry on the industrial battle? These and other questions must be faced, and it is my firm belief that no solution has yet presented itself other than removal to the country. In what respects will the workers at a suburban or rural factory be better off than their town brethren? Stated briefly, their homes will give superior accommodation at less cost; a garden or an allotment will be obtainable, affording healthy recreation and bringing in a substantial return; the time wasted and the money spent in travelling daily to and from work will be saved; the chief meal of the day will be taken with the family. The physical powers will be improved by better conditions of existence at home and at work, and the fascination of the public-house will vanish, as the various clubs, &c., and the vastly improved home life will be more attractive.

It has often been said, though with what amount of truth it is difficult to ascertain, that there are no Londoners of the third generation. This popular saying

may owe its origin partly to the continual influx of the people from the country, but it is generally understood to refer to childless marriages. If it can be shown that the saying is largely founded on fact, we may, I think, congratulate ourselves that the first steps have been taken to remedy a state of things which no one could contemplate with equanimity. The spread of the social democratic movement and the malignant growth of anarchism are not feared in this country, but notwithstanding that, the amelioration of the lot of the labourer by transference from slums to model villages would be something to be thankful for.

(*c*) The Community

It is not improbable that in the near future many very difficult problems will arise with regard to rating, and although I cannot now deal with this important point, I venture to suggest that its bearing on the subject must not be overlooked. What would happen at West Ham, for instance, if the Great Eastern Railway Company removed its workshops to some country site? It has been discussed, and may come at any time. The London Brighton and South Coast Railway Company has recently decided to move its works, and the London and South Western Railway Company is engaged in building shops for the locomotive works department at Eastleigh, thus completing the scheme started many years ago.

The reduction in the cost of manufacture to be expected from decentralised factories, should result in larger demands at home and abroad, and therefore in increased production, which, I take it, is the chief concern of any industrial community.

No close study of, but merely a cursory glance at, our

import tables relating to vegetables, bacon, poultry, and eggs is necessary to convince any one that the producers thereof obtain from us yearly a very large sum of money. I hope that, at no distant date, much of this will be spent at home, and I look to factory hands to supply these commodities by occupying, not unpleasantly, their spare time in gardens and allotments.

The death rate and infant mortality rate in many districts of London and other towns are far too high, and the body politic suffers in consequence. The total "time" lost through illness in any year is a very large amount (estimated figures have often been quoted) and this loss to the community is due in great part to unhealthy conditions, which will not obtain in country factories and villages. Then, too, the alarming increase in insanity noted of late is due in no small measure to drink; and in a recent lecture, Dr. Forbes Winslow, who speaks with authority, said that quite one-fourth of the lunacy existing in the whole universe was caused by it. Whereas, in 1859, there was one lunatic in every 536 of the population, on January 1st of this year the statistics showed that there was one person of unsound mind for every 293 of the population, London heading the list. A reduction of such a high figure is a national necessity.

It is not likely that the traffic of London will diminish to any extent, even though decentralisation of factories proceed apace, but many of the more obstructive vehicles would be withdrawn, thus making room for the inevitable expansion of passenger traffic. Estimated figures of the loss occasioned by the present congested state of affairs have also been published, and the sums named are almost incredible.

Reference to Agriculture.

It is with some diffidence that I venture in this hall to make any remarks on agriculture and horticulture, but the centrifugal action which has begun, and may be expected to continue, with regard to manufactories, must have some effect on the land. One of the consequences will be, I hope, the general cultivation of the soil by factory hands, each working in his own garden or allotment (preferably the former) and supplanting, by the production of vegetables, fruit, poultry, and eggs, the foreigner, who, if I may use the apparent contradiction now lives on what we eat. The chief point I wish to make is this, viz.: that by "intensive" culture, and the scientific and business conduct of farming and market gardening, it may be possible to obtain a profit admitting of the payment of wages which will favourably compete, when all is taken into account, with the earnings of factory employees.

It appears to me that a wage of equivalent value is first and foremost the surest means of regaining labour for the farm. Shorter hours, but not necessarily less work per diem, may also be looked for, and the provision of good cottages and large gardens, partly planted with fruit trees, will be a sure attraction. These conditions can be brought into being if the return per acre is greatly increased.

In *Fields, Factories, and Workshops,* by Prince Kropotkin, much stress is laid on the possibility of securing immense crops on but very limited areas: if you can more than treble your crop by doubling the labour thereon the gain will be very great. Major Hallett's system of "Thin seeding" is described, and I may add

that the late Sir Arthur Cotton's ideas about deep digging might also be tried on an extensive scale.

Notes on Trade Unionism.

It is fairly safe to predict that the many advantages which may he expected from the migration of manufactories will be of little avail in our industrial battle, until the workers fully understand that a reasonable measure of self-restraint, and a willingness to subordinate an immediate sectional advantage to the welfare of the community at large, will have an important bearing on the ultimate results.

The universal complaint with those employers of labour who engage men belonging to trade unions is that an honest day's work forms rather the exception than the rule. It is common knowledge that a "ca 'canny" policy has been advocated by the leaders, and in great measure blindly adopted by the rank and file. The argument that if a man does half a day's work during a day, occupation is afforded to another individual also for a day is fallacious, notwithstanding the undertaking of the union that each man shall receive a full day's wages, provided of course the work is spun out to the recognised number of hours. Apparent success may attend its adoption, but sooner or later a time arrives when the goods in process of manufacture cannot carry the cost of labour twice over. If the sale prices can be raised, well and good *pro tem,* but if not, on the one hand the manufacturer must forego his profit, employ non-unionists, or cease to produce; or, on the other hand, the articles will be imported, and it will be observed that in each eventuality the unionist fares badly.

So much has been done by our legislature for the

comfort and protection of factory workers that the home manufacturer is already heavily handicapped thereby, and the attitude of the trades unions may be characterised as singularly short-sighted.

The grouping together of factory and dwellings on some new site, and the resulting increased intercourse between the employer and the workmen, should convince both parties that their interests are really identical, and that their needs are complementary rather than antagonistic. The manufacturer who studies the well-being of his employees, not only in the works but in their own homes as well, will receive in return a more willing and therefore better service. The introduction of the "premium system of remune-"rating labour"; whereby a certain amount of time is estimated for each operation, and the worker is paid a percentage on the hours saved, appeals strongly to the individual worker to put forth his best efforts, while "profit-sharing" schemes create a general "keenness" about the work which is more effective than any amount of supervision. There can be no more fit occasion for the adoption of these practical indications of identity of interest than the starting of new works, and it is surely not unreasonable to expect more economical production in consequence. I anticipate that, in this way, the growth of trade unionism, or, at least, of some of its more objectionable features, so prominent at present, will be if not entirely hindered, at least seriously checked.

Conclusions.

I must sum up very briefly, for I fear you have already been detained too long. Having indicated how decentralisation should affect the manufacturer, the

worker, and the community, I have, to a certain extent, forestalled the conclusions to be drawn, but that method seemed to me to be more convenient than one general summary at the end.

It is my belief that a very considerable movement of factories from congested areas to suburban or rural districts may shortly be expected, and I would impress upon everyone—upon the manufacturer more particularly—the enormous advantages to be derived from the housing of the workers in the best practicable manner. I am sanguine enough to believe that we, as a people, still retain our powers of adaptability to meet altered circumstances of competition, and that, given a fair field, we need fear no foe. And, finally, I hold most strongly that the true solution of that most complex and confusing problem known as the "housing question" is to be sought, not by municipal or philanthropic effort, resulting in the erection of more and yet more dwellings in and about our large towns, nor by the increase of transit facilities, but by the establishment of country factories and model villages in connection therewith.

Mr. WHEELER, K.C. (Associate) said that he had the greatest pleasure in asking the Meeting to join him in according Mr. Scoble a hearty vote of thanks for his most admirable and instructive Paper. He thought, however, the truest compliment he could pay to Mr. Scoble would be to suggest that, as his Paper was so full of matter for thought, and contained so many valuable suggestions on points of great importance, it was impossible adequately to discuss it without some opportunity of carefully studying its details, and that it would be well if its consideration were postponed to a future Meeting. He would, therefore, propose that the

discussion be adjourned to the Meeting of January 11th, when he should be glad, as a barrister, to say a few words on some of the very important topics touched on in the Paper. It was too serious a matter to be dealt with off-hand.

Before he resumed his seat, he trusted he might be allowed to give expression to what he was sure was the sentiment present in the mind of every Member in the room, by saying with how much pleasure they welcomed the President once more among them, restored to health and strength.

Mr. HOWARD CHATFEILD CLARKE (Fellow) said he had great pleasure in seconding the vote of thanks to Mr. Scoble for his very lucid and able Paper which dealt with many subjects of interest and importance which he was sure many Members would wish to discuss. But he felt it would be impossible to do this adequately at such short notice, and he therefore gladly concurred in the suggestion of an adjournment.

The PRESIDENT said he was sure all present would agree that the course suggested by Mr. Wheeler was the best. The Paper dealt with very important matters and was worthy of the fullest discussion, which would not be possible unless Members had time to carefully consider its many points and suggestions.

He thanked the Members for their very kind and sympathetic remarks about himself, and hoped that his health would, in the future, enable him to perform efficiently those duties which devolved upon the holder of the high office to which the Institution has done him the honour of electing him.

The vote of thanks having been put and carried unanimously, the Meeting then adjourned to Monday, December 7th, at 4 p.m.

PAPER 292.
No. 460.

THE PRESERVATION OF TIMBER,

WITH SPECIAL REFERENCE TO ITS PROTECTION FROM DRY ROT, AND THE INCREASE OF ITS USEFULNESS FOR ESTATE FENCING AND OTHER PURPOSES.

By EDWARD THOMAS SCAMMELL, F.R.G.S.

Read at the Ordinary General Meeting of THE SURVEYORS' INSTITUTION *on Monday*, 7th *December*, 1903.

ALBERT BUCK (President) in the Chair.

The subject which I have the honour to submit for your consideration is one of special importance, in view of the great and increasing demand for all classes of timber. This applies particularly to the United Kingdom, which has to import by far the greater part of its supplies of wood, and which, though in past years, if not at present, the home of iron and steel, has not only found no substitute for this "old world material," but has more than doubled its annual consumption of wood during the last half-century.

The importance and gravity of this fact is accentuated by the consideration that the supply of timber is rapidly decreasing in all parts of the world. Professor Schlich in his Paper on the "World's Timber Supply" (1901), Mr. John Clarke Hawkshaw, in his Presidential Address to the Institution of Civil Engineers in November, 1902, and other authorities have shown that in Europe there

are only five countries which export timber, and the amount exported by these five countries is nearly 2¾ million tons short of the total amount required in Europe alone.

The wholesale destruction of the forests of the old world and the new, for the legitimate purposes of land settlement, agriculture, and trade, and the wasteful methods often employed in the supply of these needs, to say nothing of the enormous areas of forest destroyed by fire, have brought us within measurable distance of a timber famine, the result of which would prove disastrous to every interest of our commercial and industrial life.

On this point, however, important though it is, I do not propose to dwell, excepting for the purpose of bringing into prominence the necessity, not so much of conserving and developing the forest resources of the world and thus repairing the waste of past and present years, as of adopting such means as science brings within our reach of preserving the timber itself. If it is possible, as many think, to render timber less subject to decay and consequently more durable, and to make it even more fit for industrial uses, by methods of preservation, then no effort should be left untried to secure this important result. Another reason of considerable weight, which lends encouragement to such effort, lies in the fact as expressed by Dr. Von Schrenk in his Paper on "Seasoning of Timber," issued by the United States Department of Agriculture (1903), that "much standing "timber of varieties now worthless for construction "purposes, owing to its rapid decay, may be made com-"mercially valuable by preservation processes."

Dr. Schlich also says, in his *Manual of Forestry* (1896), "the preservation of timber is greatly in the interest of "the forest owner, for were it possible to use beech and

" other broad-leaved woods, oak sap-wood and coniferous
" wood in the place of oak heart-wood, such forest produce
" would thus be rendered more valuable."

Hence my subject, "The Preservation of Timber," is one that immediately concerns all the interests that are affected by the supply of timber, and not least those which relate to estate fencing and country work generally.

In dealing with this question, I wish it to be clearly understood that I do not propose to enter into a technical discussion of the merits of the various processes of which I may treat. I desire rather, from the information I have gleaned, to lay before you some facts; first, as to the object of preservation processes; and secondly, as to the general methods of preservation, with a brief summary of a number of processes of seasoning and impregnation.

I wish it also to be understood that my selection of these processes has been determined, not so much by their inherent value as by the fact, especially so far as the United Kingdom is concerned, that they profess to be commercial processes, and that some of them, if not all, claim to protect timber from dry rot and to increase its usefulness.

It is unnecessary to say more than a few words by way of further introduction, as to the nature of the material to be treated. Wood is not a mere set of capillary tubes. It is a complex structure and is as variable in its character as in its uses. If dried at 300° Fahrenheit, it is found to be composed of 99 per cent. of organic and 1 per cent. or less of inorganic matter. The organic matter consists of cellulose, permeated by a mixture of substances, known collectively as gnin, and by particles of mineral matter which, when burnt, remain as ashes. The nature of these substances and their various functions in the living plant are subjects for

botanical description, but it may be interesting to notice, according to Mr. Filibert Roth in his Paper on "Timber," issued by the United States Department of Agriculture (1895) that in 100 lbs. of wood, dried at 300° Fahrenheit, and of cellulose, the following proportions are found: wood = carbon about 49 lbs., hydrogen 6 lbs., and oxygen 44 lbs; cellulose = 44·4, 6·1 and 49·3lbs.

Wood, I repeat, is not a set of capillary tubes like a sponge, so that any solution that may be used for treating it will have to work its way through walls of wood substance, as the vessels, no matter what their length, have transverse partitions. In any method of impregnation, therefore, the way by which the wood can be saturated is a matter requiring the most careful attention.

1ST. THE OBJECT OF ALL PROCESSES OF PRESERVING TIMBER IS, PRIMARILY, TO PREVENT OR TO CHECK DECAY.

It may not be necessary, nor indeed desirable, to discuss at length the causes of decay in timber, in connection with a Paper such as this, yet it may be well to consider a few general facts in relation thereto. The causes of such decay are mainly fungi, bacteria, insects, and ship worms.

Fungi, in various forms, are parasites of the living tree, and often so affect it as to render it useless for industrial purposes. But they also act as agents of decay, in the same or other forms, in the tree after it has been felled. The most important of the fungi that affect converted timber is the *Merulius lachrymans*, which produces the disease so well known, and so much dreaded, dry rot. "The spores of this fungus," says Professor Boulger in his book on "Wood" (1902) "germi-

"nate on damp wood, provided some alkali is present, "such as the ammonia fumes in stables. Then, under "the influence of warm still air (*i.e.* the absence of "ventilation) its spawn-threads spread not only in all "directions through the wood, forming greyish-white "cords and flat cake-like masses of felt on its surface, "but even over surfaces of damp soil or brick-work "and thus to other previously uninfected timbers. "Imperfectly seasoned timber is most susceptible to "dry rot; the fungus can be spread either by its spawn "or by spores, and these latter can be carried even by "the clothes or saws of workmen, and are, of course, only "too likely to reach sound wood if diseased timber is left "about near it; but on the other hand dry timber kept "dry is proof against dry rot, and exposure to really dry "air is fatal to the fungus If only the ends of properly "seasoned beams which are inserted in brick walls are "previously creosoted, it will prove a most effective "protection." *Fungi* are really low forms of plant life, and consist of colourless fine threads called hyphæ. The combination of these hyphæ constitute the mycelium or spawn. The hypha springs from a spore, the product of the fungus when it has fructified. Multitudes of these spores are produced by a single fructification.

Bacteria, which are also low forms of plant life, are very similar in their action to fungi. But their exact nature and modes of operation it is very difficult to determine. "It is known," says Dr. Von Schrenk in his paper on "The decay of timber and the methods "of preventing it" (1902), "that fungi and bacteria, "which grow on dead or living organic matter, obtain "their food by breaking up the complex chemical "compounds of which the wood is composed into "simpler substances. But there are many questions

"connected with their life history of which we know "practically nothing."

In considering these questions and the general causes of the decay of timber, it is interesting to note how completely Liebig's theory, that decay is caused by slow combustion (eremacausis) has been upset in later days, by the investigation of Pasteur and others, who have proved, as far as proof is available, that decay, or the change which passes upon organic matter on its way to final destruction, is due to the activity of lower animals and plants. By these investigations the important principle has been established that "no change probably "takes place in the chemical nature of wood or any "organic material without the active working of some "living organism."

It is well to notice that among the chief contributing aids to the growth of fungi and bacteria are heat and moisture; in fact without these, in due measure, it would be impossible for destructive agents to grow, however abundant may be their food supply. Excess of cold, therefore, or excess of heat, producing complete dryness, are alike inimical to their growth. The same may be said of excess of moisture. Immersion in water, as is well known, will preserve timber from decay for unknown periods. But in considering the question of wood preservation it is certainly important to remember that "no water means no rot."

Among the food supplies of fungi and bacteria, nitrogenous substances, such as the sap in the younger portion of the wood, play an important part. It is, therefore, necessary that in any system of wood preservation these should be removed or rendered, if it be possible to do so, chemically inert.

As to the decay caused by *insects and worms*, it may

be said that these agents of destruction consist mainly of three kinds: (1) *Moths*, the larvæ of some of which are most destructive to growing trees and sometimes attack converted timbers; (2) *Termites*, better known as white ants; and (3) *Ship worms or teredos.* Respecting these timber pests, Professor Boulger says, after referring to the larvæ which attack living trees, "others are far "more destructive, in many cases mainly attacking "sound converted timber. The widespread death-"watch beetles for instance (*Anobium domesticum, A. tesselatum*, and allied forms), the chief cause in England "of the familiar 'wormholes' in oak, frequently entirely "destroy the timbering of roofs, and still more commonly "riddle our smaller articles of furniture." "Ship-"worms, the teredo navalis, occur in all seas; they "generally bore with the grain, lining their burrows "with a layer of calcareous matter and carefully avoiding "one another's burrows. They will sometimes com-"pletely riddle timber within four or five years. The "termites belong to the neuroptera, an entirely distinct "order of the insect class from that to which the true "ants belong. They will attack most species of wood "after conversion, sometimes eating their way upward "from the foundations of a house to its rafters until all "its timbers are reduced to a mere shell, or completely "destroying wooden articles of furniture."

2ND. GENERAL METHODS OF PRESERVATION, WITH SUMMARY OF PROCESSES.

The ordinary methods of preservation are by seasoning, either natural or artificial, charring or scorching, and impregnation.

(1) *Seasoning.* Wood, when thoroughly dry, is

practically indestructible. Many instances of the longevity of well-seasoned timbers may be cited. In the British Museum may be seen a sample of Egyptian wood that must be, at least, 3,000 years old, while wood has been discovered in the cave dwellings, the age of which it is impossible to estimate. Pieces of pine have been unearthed in Illinois which have been buried 60 or more feet deep for many centuries. In this country there are numberless instances of wood used in buildings, which has remained sound and good for hundreds of years. It may be well said, therefore, that dry wood may resist the attacks of destroying agencies for indefinite periods of time. So that, were it possible to season timber so as to reduce it to a skeleton of lignin, there would be little, if any, need for other treatment. The process of complete seasoning, however, by so-called natural means, involves so many difficulties and occupies such a length of time, that for ordinary industrial uses it is necessary to seek the aid of so-called artificial means.

I speak of "so-called" natural and artificial seasoning, because I want to make it clear that the difference between the two methods is only, or chiefly, one of name. I should rather describe them as "time seasoning" and "accelerated seasoning," for each method may be strictly "natural," and in complete harmony with the nature of the wood itself.

Seasoning may be accelerated, as is well known, by immersion in water. Many of the constituents of wood which require to be got rid of or changed before the timber can be seasoned are leached out in water, so that timber that has been soaked in water may on exposure to the air be much more rapidly dried. Hence the custom of rafting timber down rivers is recommended, not only as a cheap means of transit, but as a help to

seasoning. It would be impossible, however, to adopt this process to any large extent, even were it found to be uniformly advantageous to the wood.

Among the conditions necessary to the success of natural or time seasoning, that is, seasoning by air drying alone, are (1) the sizing of the timber, (2) its careful stacking so as to secure the free passage of air, and (3) the necessary shelter from the rain or sun. These are matters that are often neglected, and which require increased attention on the part of timber users. But with all the care and skill that may be exercised, the results are often so unsatisfactory, and the cost of thorough seasoning so heavy, as to require, as I have already intimated, the employment of other methods. I know that some timber users strongly object to any other process than that of air-drying, as they consider that timber, though it may be dried quickly by artificial or accelerated means, is often deteriorated in the process, and that the waste involved by splitting may entail, in the end, greater cost than the slower but surer process.

In recent investigations on this subject by the United States Agriculture Department—Bureau of Forestry—whose efforts may well be imitated by our own Board of Agriculture, it has been found that careful methods of accelerated seasoning invariably answer well. Mr. Roth says, " with kiln-dried wood all parts are equally dry. " Ordinary timber requires months before it is at its best ; " kiln-dry timber, if properly handled, is prime at once."

This leads me to say that there are two methods of accelerated seasoning ordinarily employed, viz. kiln-drying or hot-air seasoning and steam-drying. In respect to the former, Professor Boulger says, " kiln-" drying or hot-air seasoning is suited only to boards or " other small material. It is a common practice to

" first steam the timber, which reduces its hygroscopicity " and, therefore, its warping. This, however, is said to " reduce the strength if not also the durability of the " wood." I may notice here that some of the advocates of the steaming process affirm that this does not necessarily follow, as it is possible so to steam the wood that its strength and durability are augmented. But Professor Boulger goes on to say: " If not steamed, the " ends of boards should be clamped before kiln-drying " to prevent splitting and warping. Neither hygro- " scopicity nor shrinkage of wood can be altogether " overcome by drying at temperatures below 200° " Fahrenheit; but, as a rule, only the first shrinking " is likely to cause splitting, so that any timber which " has had from three to six months air-drying may be " safely kiln-dried. Too rapid kiln-drying, however, is " apt to produce 'case hardening' in oak and other " hard woods, the drying and shrinking, that is, of an " outside shell followed by 'honeycombing,' or splitting " of the interior along the pith-rays."

Dr. Von Schrenk says that " in a number of timber- " treating plants in the States, green or water-soaked " wood is steamed for several hours to prepare it for the " injection of chemicals. Steaming is said to coagulate the " albuminous substances present in wood, thus rendering " the walls of the wood-fibre more permeable." This is the view maintained by the advocates of steaming in this country as a means of accelerated seasoning. But Dr. Von Schrenk considers that until the objection that arises from the risk to the wood, in steaming at high temperatures, is overcome, it is at best a " makeshift, and " unless modified materially, it can never replace open- " air seasoning, supplemented possibly by kiln-drying."

Summary of Processes of Accelerated Seasoning.

It is impossible to enumerate all the methods which have been recommended or adopted for this purpose. I can only indicate a few that are in operation in this country. Among these, to mention them in alphabetical order, are the Charteris-Shapland (improved), the Erith, the Haskinized, Parsons, the Sturtevant, and the Superheated Steam.

The Charteris-Shapland Improved is the system employed by Messrs. B. Ward and Co., of 38, Parliament Street, S.W. In the particulars furnished by the inventors, it is stated that "the timber is placed in a "drying chamber at a normal temperature, the heat "being gradually raised until the timber begins to "'sweat.' This sweating is encouraged by introducing "at this point live steam, which is circulated by means "of fans. At the end of 36 to 72 hours, according to "the kind of timber, the sap is completed exuded. The "steam is then shut off and the timber is allowed to "cool gradually for a period of from five to thirty days, "the results being," it is claimed, "that the timber is "thoroughly seasoned, void of all sun shakes or dis-"colouration."

The Erith is a "moist-air" process, and the proprietors say that "there is only one way of drying "timber rapidly and without injury, viz. by a circula-"tion of warm but very moist air, thus protecting the "surfaces from case-hardening, removing the moisture "from the centre outwards, and finishing the surfaces "last. In this way, and in this way alone, any kind of "wood, hard or soft, green or air-dried, can be dried "rapidly and in perfect condition." There are two systems employed—the A B C Fan System, "which is specially "applicable to smaller furniture, joinery, shipbuilding, "flooring, &c., and an Automatic Dryer, which has no fan

" or other mechanism, but circulates a moving fog or mist " of warm but very moist air by natural means. It is " worked progressively, that is, the wood passes through " the building in trucks, thus reducing handling to the " minimum." The Erith Engineering Co., of 70, Gracechurch Street, E.C., claim that their system is " without " any rival for drying either soft or hard woods rapidly, " economically, and in perfect condition."

The Haskinized is the well-known vulcanized system, by which the general principle of charring is applied to the whole of the wood. " Charring," the Company say, " is based upon the only correct principle, that of " utilising the natural fluids in the wood by the appli- " cation of heat. But, in charring, the heat cannot " penetrate to the centre of the timber without burning " too deeply; some of the fluids are not reached, while " others escape or are lost in the operation; hence " charred posts and timbers are found sound to the " depth of half to one inch (so far as the heat had " penetrated), but rotten in the centre. Haskinizing " (vulcanizing) deals with the natural fluids or proper- " ties contained in the wood itself, and consists in " placing raw wood in a cylindrical treating chamber, " and submitting the same for a few hours to a medium " of superheated, circulating, compressed air, which " effects a chemical change. The air pressure employed " prevents evaporation, while the intense heat passes " through to the centre of the timber, causing the " constituents to organise into an oleaginous com- " pound, saturating the fibre, and filling the pores. In " cooling down under the same pressure, the new com- " pound becomes consolidated with the fibre, thus in- " durating, strengthening, perfecting, beautifying, and " preserving the wood from decay. The germinative

"principle inherent in the sap is destroyed, all fungi, "germs, or insect life are killed, and no offensive odour "is emitted from the wood after treatment."

A number of particulars and tables of tests are given in the pamphlet of the Haskin Wood Vulcanizing Company, Limited, of 2, Dean's Yard, Westminster, S.W., in which are shown the alleged advantages of the system.

The Parsons is a drying kiln which is said to be constructed and worked on "common sense" principles, by which its inventor describes it. I have no particulars as to the construction of this kiln, but I understand that it has been in useful operation for some years by a number of timber users.

The Sturtevant Dry Kilns consist of "a heating, "drying, and ventilating apparatus, which includes a "fan-wheel of the centrifugal type, a steam heater, "across which the air is forced or drawn, and which is "built up of corrugated sectional bases, usually of the "standard type, and a return water apparatus."

The minimum size heater specified for each fan is for heating with live steam. The maximum size is for drying with exhaust steam. The system is one of atmospheric drying at moderate temperatures, the principle claimed being that "frequent air movement at "moderate temperatures is often equivalent to more "rapid change at higher temperatures."

There are several classes of kilns employed, according to the quantities and kinds of timber to be dealt with, known as the apartment kiln, the tower kiln, the progressive lumber kiln, full particulars of which are given in the pamphlet of the Sturtevant Engineering Company, of 147, Queen Victoria Street, E.C.

The Super-heated Steam process is, as its name indicates, a method of drying timber by super-heated

steam at high temperatures. It is claimed by Mr. Higgins, the inventor of the system, "that a process "which kills all the micro-organisms in the wood, and "in which all the albuminous material is coagulated, "would theoretically be very efficacious," and this he claims for the super-heated steam process. "This can-"not be done at atmospheric pressure," he says, "for, if "the air is too hot the wood case-hardens and warps. "If you dry at a low temperature the albuminous "material is dried in its uncoagulated state, and the "wood is, therefore, not strengthened by the process, "but, if anything, weakened."

Particulars as to this system may be obtained from the Wood Syndicate, Ltd., 2, Newgate Street, E.C., who say that by the adoption of this process "timber pur "chased green may be rendered fit for conversion into "joinery in a week."

There are many other drying systems, but these, as representing a variety of different methods and of different principles, will suffice to show that increasing provision is being made for dealing with the accelerated seasoning of timber.

(2) *Charring.* I propose to say only two or three words on this subject, as it is well known that the durability of timber and its immunity for a considerable time from decay are ensured by charring, which has been practised for unknown periods.

The piles on which Venice was built were charred, and so were ship timbers used in the British navy long years ago. At the present time it is largely employed in works of piling and fencing, and, on some railways, for oak and other hardwood sleepers.

Various processes of torrefying woods have been employed, but, to be effective, it is necessary that the

timber should be thoroughly seasoned before it is charred—if not, it will only hasten its decay. Another objection lies in the fact that the charred surface is liable to easy fracture, and to disintegrate by frost, water, and other influences. At the best, therefore, it can only be regarded as temporary in its action.

(3) *Impregnation.* This, in some respects, is the most important part of my subject. I regret that I have not the time, even if I had the ability, to do it justice.

The general theory of impregnation, or the antiseptic treatment of timber, is that it renders wood more able to resist the attacks of destructive agents, and that by it the physical properties of wood may be improved. It is also claimed that there are methods of treatment by which wood may be rendered non-inflammable.

I need not say that it is impossible, in the limits of a paper like this, to do more than outline the main points of this wide and interesting question. When we know that there are hundreds of patented processes dealing with the impregnation of timber, it will be seen that only the most cursory glance can be given to the subject.

In seeking to attain the object sought by any process of impregnation, there are four points, according to Dr. Von Schrenk, to be kept in view:

1st. It must be poisonous to bacterial and other destroying agents.

2nd. It should be capable of easy injection, and when once in the wood it ought to stay there.

3rd. It should penetrate all parts of the wood.

4th. It should be cheap.

How far the processes I name may realise all these objects it is not in my province to say. I must content myself with mentioning them only, with such fulness of detail as time may permit.

One of the ablest works on the subject is that of Mr. S. B. Boulton. The full title of his book is "*Anti-*
" *septic Treatment of Timber*, a Paper read before the
" Institution of Civil Engineers in 1884, with an Abstract
" of the Discussion thereon." Since that time a large number of treatises have been written, dealing with various aspects of the question, a number of which I have specially perused for the purposes of this Paper. One of the most exhaustive of these is the "Report on
" the use of Metal Railroad Ties and on Preservation
" Processes for Wooden Ties," by Mr. W. E. Russell Tratman, issued by the United States Department of Agriculture in 1894. There is also the excellent Paper written by Dr. Von Schrenk issued by the same department in 1902, to which I have already referred. Besides these, there are the publications of authorities on timber like Professor G. E. S. Boulger, Professor Marshall Ward, Dr. Schlich, and others, to which I must refer you for fuller examination of the subject.

Mr. Boulton, in his Paper, says that "by the year
" 1838 four several systems of antiseptic treatment were
" fairly before the public, and competing for the favour
" of engineers. These were: corrosive sublimate, intro-
" duced by Mr. J. H. Kyan; sulphate of copper, by
" Mr. J. J. Lloyd Margary; chloride of zinc, by Sir
" William Burnett; heavy oil of tar (afterwards called
" creosote), by Sir John Bethell.

" *Corrosive sublimate*, or *bi-chloride of mercury*,
" was successfully used by Homberg, a French savant, in
" 1705, for preserving wood from insects. Kyan's first
" patent for the employment of corrosive sublimate for
" wood-preserving, was taken out in 1832. Kyanizing
" was for a long time by far the most popular of the
" timber preserving processes in this country, and the

"name is to this day frequently applied erroneously "to other systems. Kyanizing has met with a consider-"able amount of success in comparatively dry situations; "but in water, and particularly in sea-water, it appears to "have invariably failed, as have all the salts of metals.

"*Sulphate of copper* has perhaps been the most "successful of all the metallic salts as an antiseptic for "timber. Applied in various ways, it was popular in "France long after it had been given up in this "country. It is still in use in France to a limited "extent, for sleepers and telegraph poles.

"*Chloride of zinc.* This was recommended by "Thomas Wade in 1815, and by Dr. Boucherie in 1837; "and a patent for its application was taken out in this "country by Sir William Burnett in 1838. It is no "longer used in France, but it is still employed in "Holland and Germany. Chloride of zinc is a powerful "antiseptic, but its weak point, for wood preserving, "consists in its extreme solubility in water.

"*Heavy oils of tar, commonly called creosote.* The "practical introduction of the subject is due to Mr. John "Bethell. His now celebrated patent, which is dated "July, 1838, does not mention the words 'creosote' or "'creosoting.' It contains a list of no less than eighteen "various substances, mixtures or solutions, oleaginous, "bituminous, and of metallic salts. Amongst them is "mentioned a mixture consisting of coal-tar thinned "with from one-third to one-half of its quantity of dead "oil, distilled from coal-tar. This is the origin of the "so-called creosoting process. Creosote, correctly so "called, is the product of the destructive distillation of "wood, and coal-tar does not contain any of the true "creosote, which has never been used for timber pre-"serving."

Of the materials thus described by Mr. Boulton, Professor Boulger says, "the most effective is corrosive "sublimate (mercuric chloride), the use of which is "known from its inventor, Kyan, as Kyanizing. It "forms insoluble compounds in the wood, and is, there-"fore, permanent; but its costliness and dangerously "poisonous character are against it. Zinc chloride, "introduced by Sir William Burnett, is cheap and "effective against both insects and fungi, but less so than "creosote. Copper sulphate, sometimes used for sleepers "in France, is cheap, but is deposited in crystals in the "wood, rendering it brittle, and, owing to its solubility, "is as easily washed out as it is injected. Creosote, "originally suggested by Bethell, and now very largely "employed in various ways, is cheap, lasting in its "effects, and useful in rendering the wood damp-proof."

It is impossible for me to trace in detail the history or uses of these various materials or to show how they have been modified in recent years. I can only indicate two of them, which are more or less in ordinary use in this country—Burnettizing and Creosoting.

The system of *Burnettizing*, with which the firm of Sir William Burnett and Company, Limited, of Nelson's Wharf, Millwall, E., has been associated for over half a century, appears to be still in considerable demand. Among the claims that are advanced for it, as applied to wood, are the following:—"It hardens and improves its "texture. It enters into permanent chemical combina-"tion with the ligneous fibre, and no amount of washing "or boiling in water will remove the chemical compound "so formed. It completely preserves it from wet and "dry rot. It renders it perfectly uninflammable when "used of a certain requisite strength, and even as "ordinarily applied makes it less inflammable: a very

" valuable quality when applied to the planking of rail-
" way bridges, viaducts, or sheds. It preserves it from the
" adherence of animal and vegetable parasites, and also
" from the attacks of white ants and other insects. It
" does not discolour it, and, after treatment, timber will
" take paint or varnish quite as well as timber not treated.
" Iron or other metals are not oxidated or dissolved, either
" when immersed in the solution or imbedded in wood
" prepared by it. Timber can be prepared at all times,
" whether wet or dry, green or seasoned, with the cer-
" tainty of the preservative fluid penetrating to its centre."

But of the four methods referred to by Mr. Boulton, the best known and the most widely used is that of *Creosoting.* This process consists of placing the timber in a closed cylinder, and, after exhausting the air, introducing the heavy or dead oils derived from coal-tar, heated to about 120° Fahrenheit, which are forced into the wood at a pressure of from 60 to 100 lbs. to the inch. The amount of oil which the timber absorbs varies from 8 to 10 lbs. to the cubic foot, according to the length of time it is kept in the cylinder. It is claimed that by this process the albumen in the wood is coagulated, and the pores of the timber are filled with a bituminous substance, which kills the micro-organisms and prevents the absorption of water. On the other hand, creosote renders wood more inflammable, and, like some other compounds, gives it an offensive odour.

There are many large manufacturers of creosote oil, which is now recognised as one of the most important articles of commerce.

Among these are Messrs. Burt, Boulton, and Haywood, Limited, of 64, Cannon Street, E.C., whose works at Silvertown, E., in the provinces, and on the Continent, are among the largest of their kind in the world. Messrs.

Armstrong, Addison, and Company, of Sunderland, who are Kyanizers as well as Creosoters, and whose creosoted fencing appears to be a special feature of their work (some interesting particulars on this point are furnished in the testimonials received by this firm), and Messrs. English Brothers, Limited, Creosoters, of Wisbech, who also pay special attention to the creosoting of fencing and of farm and estate shedding.

By these and other manufacturers the advantages of creosoting have been made widely known.

But besides these methods of treating wood, there are many others which in recent years have come into use.

Some of these are not really methods of impregnation as they rely upon the solution sinking into the wood by the simple method of painting the wood with the solution or by dipping the wood into it.

Among these are the following processes:—

Carbolineum avenarius, for which it is claimed that "the carbolineum fulfils all the conditions of an efficient "preservative of wood against all external and internal "injurious influences. By its own action, without any "pressure being applied, it penetrates into the wood, "drives out the moisture, makes it impervious to damp, "and thus protects the wood from rotting, decay, and also "from the action of noxious gases and acids. It does not "stop up the pores of the wood, therefore does not cause "dry rot." The makers of this preparation are Messrs. Peters, Bartsch, and Company, of Derby.

Solignum is described as a stain and preservative for wood. It can be applied cold or hot, the latter being preferred, as it penetrates further into the wood and drives out the moisture. It claims to be a specific against white ants and sea worms. It is prepared by Messrs. Major and Company, Limited, of Hull.

Jodelite is said "to preserve hard and soft paving "blocks of timber generally, and to prevent dry rot and "fungus, and dampness in walls." Like Solignum it is claimed that it is especially of value in protecting timber from the ravages of white ants, sea worms, and all insects which attack wood. It is manufactured by Mr. Joseph Dee, of 5, Cross Street, Manchester.

The Atlas Wood Preserver and Disinfectant is another process which consists of immersing the wood in the solution or of painting it in situ. It is claimed that "it protects from white ants and other destructive "insects and from organic decay. It hardens and "strengthens wood fibres. It seasons timber without "staining and renders it less inflammable, and in con-"junction with coal-tar is an effective substitute for "creosoting." It is prepared by the Atlas Preservative Company, of Windmill Lane Wharf, Deptford, S.E.

The Silvertown Special Wood Preservative, which is a preparation of heavy coal tar oil, with other ingredients, is manufactured by Messrs. Burt, Boulton, and Haywood, Limited, at their Silvertown works. They say that it prevents rot and decay, where impregnation with ordinary creosote is inadmissible. Whereas ordinary paint merely coats the surface, the Silvertown preservative penetrates into the wood, stops up the pores, and acts generally as an antiseptic. For park and garden fencing, the woodwork of stables, &c., they claim that "it will be found to combine many of the "advantages, ornamental on the one hand and antiseptic "on the other, of both paint and creosote."

The last of this series that I shall mention is the preparation known as *Stop-rot,* which is manufactured by Messrs. Pilchers, Limited, of Morgan's Lane, Tooley Street, S.E. Stop-rot is said to be "an absolute preven-

"tive of decay and dry rot in wood, is proof against "insects, and is, therefore, specially valuable in tropical "countries."

The concluding processes which I propose briefly to notice are true impregnation processes. They are the *Hasselman or Xylosote Process,* which consists of "boiling the wood in a solution of the sulphates of "copper and iron (crystallised together in the proportion "of 20 per cent. of copper to 80 per cent. of iron) and "alumina and kanit, a salt obtained from mines at "Stassfurt, Germany, consisting chiefly of sulphate of "potassa and magnesia, and the chloride of magnesia. "By this process the sap is dissolved and carried off in "the liquid, the copper destroys any fungi (or germs of "decay), while the iron forms a chemical combination "with the cellulose or woody fibre which is insoluble in "water." It is claimed that by this process "decay in "wood is prevented, its inflammability is reduced to a "minimum, and the wood itself is rendered hard and "tough."

The firm operating in this country is the Xylosote Company, 6, Red Lion Court, Cannon Street, E.C.

The Electric Timber Seasoning and Preservation Company, Limited, of 65, Chancery Lane, W.C., affirm that by their process they are able effectively to season timber, to preserve it from decay, and to render it uninflammable. For seasoning wood, a solution of magnesium sulphate is used; for preserving it, zinc sulphate; and for rendering it fire-resisting, ammonium sulphate. Their method of impregnation is to force the solution into the wood by electricity, and they say that after treatment "the cells of the wood are as firm and un-"shrunken as in the growing tree." After the complete saturation of the timber, it is carried into a drying

chamber, where it is thoroughly dried and rendered ready for use. The Company claim to be able to treat green wood as effectively as ordinarily seasoned wood, if not more so.

The Non-flammable Wood Company, Limited, of Townmead Road, Fulham, S.W., claim to have solved the difficulty of making wood completely fire-resisting, and to prove by scientific tests "that the fire-proofing is perma-"nent, the ingredients employed are harmless to the wood, "and that the strength, durability, and working qualities "of the wood remain practically unaltered." Their system consists of the complete impregnation of the woods with various chemicals, the nature of which is known only to themselves, and then, as in the previous case, passing it into a drying chamber.

The Powell Process. This is one of the latest claimants to public attention as a method of wood preservation. The inventor, Mr. Wm. Powell, of Liverpool, states that he was induced to consider the question by noticing that timber, when acted upon by sugar, did not appear to be affected by dry rot. He therefore experimented with a solution of sugar and water, and with very striking results. He found that "by boiling timber in a thin saccharine solution until "most of the air in the timber was exhausted, and then "leaving the wood in the syrup to cool, a certain amount "of sugar was absorbed by the timber. After the wood "had become saturated it was put into a drying stove, "and the moisture driven off at a fairly high tem-"perature." The result proved both interesting and valuable, and further experiments have shown, to quote from the particulars given of the process, that "it "increases the strength, durability, elasticity, and "cohesiveness of the wood and improves its appearance.

"It enables wood to be seasoned rapidly, without crack-
"ing or splitting. It reduces cracks in seasoned timber
"closing them entirely if clean and not too wide. It
"lessens its porosity and its tendency to warp, split, shrink,
"or expand. It checks tendency to dry rot. It renders
"wood less liable to the penetration of disease germs,
"and therefore makes it more hygienic." In dealing with dry rot it is said that "efforts have been made to "cultivate rot in timber that has been treated by this "process under conditions favourable to its develop-"ment, but, so far, no positive results have been "attained, the timber successfully resisting the alterna-"tions of moisture and dryness. A notable fact in this "connection is that in no case has dry rot been dis "covered in timber used in sugar factories or refineries "where it has absorbed saccharine matter." The inventor says that his process is "simple, effective, rapid in its "action, inexpensive, and applicable to all descriptions "of wood."

The peculiarity of this process lies in the fact that it is absolutely distinct from every other recognised method of wood preservation, since it introduces into the operation an entirely new and natural solution. One of its chief claims is that, by it, "low class woods, "such as poplar, may be so improved as to render them "suitable for many purposes for which only high-class "woods are at present used." The firm having charge of this process is The Powell Wood-Process Syndicate, Limited, Temple Bar House, 28, Fleet Street, E.C.

In conclusion, allow me to say, that while the facts I have adduced on the general question of wood-preservation, and the information I have been able to give as to the various processes employed, apply to the industrial uses of timber of all kinds, they have a special

bearing upon the question of estate fencing, as, by one or more of these processes, the difficulties of preserving fencing timbers from decay may be readily overcome. At the same time, some of the points raised concerning, for example, the possible improvement of certain low class timbers by some system of wood preservation, may be of special importance to the members of this Institution, who represent by far the larger portion of the land management of England.

Mr. T. A. DICKSON (Fellow) said he had much pleasure in proposing a very hearty vote of thanks to Mr. Scammell for his able and exhaustive Paper on the preservation of timber. To land agents whose business it was to manage large estates the subject was one of the greatest importance, and more especially so if one's lot happened to be cast in a popular hunting district, where barbed wire was a thing not to be even thought of, and where it was, consequently, necessary, in order to meet the wishes of those hunting, to make great demands upon posts and rails, which, when exposed to the wet and (especially in the case of the posts) situate between wind and water, were certainly not everlasting, and owing to the necessity for frequent renewals represented a very heavy item in the expenses of estate management.

He could not speak with knowledge of many of the processes mentioned in the Paper, but his experience of creosoting was that, notwithstanding the advantages of method and material claimed by different companies, the results very seldom came quite up to the expectations. He could speak with regard to carbolineum, which he had used a good deal for timber buildings and other similar purposes, and he had no hesitation in saying that after

some years' practical experience, he had found it ex-extremely satisfactory.

He was a little disappointed that Mr. Scammell had not found it possible to give some definite idea of the cost of rendering timber more or less everlasting, or, at any rate, prolonging its life beyond its natural term, and he hoped that during the discussion, some speakers might be able to indicate, even roughly, the cost of adopting the different systems of preservation of timber; so that land agents might have some guide in considering whether it was better worth while to go on using the home-grown timber in its ordinary state, or to put down plant for treating it by one or other of the processes named or, again, to buy timber ready treated.

Mr. A. HARSTON (Fellow), in seconding the vote of thanks, said he was much interested in the Paper, though at so short notice he was scarcely in a position to supplement it usefully by any remarks of his own. It would, he was sure, be of the greatest value for future reference in cases where it was necessary to consider the desirability of adopting one or other of the processes for the preservation of wood.

It occurred to him that there was some confusion in the public mind, and sometimes even in the professional mind, as to what was sap. Sap was considered to be the liquid juice of the wood, and it was often supposed that if the wood were dry the sap was gone; but of course the sap-wood remained, and this immature wood was the first to decay. Whether or not any process were applied, the sap-wood was always the earliest to decay.

To get timber cut entirely free from sap-wood was often almost impracticable, as had been said by Mr. Dickson in referring to oak posts for fences, and the

consequence was that when exposed to moisture and heat alternately it rapidly decayed. It would generally be found that when the sap-wood had been left in and used, fungi commenced growing in that portion of the timber and spread to other parts.

He saw a very instructive example the other day in a railway station with a wood platform exposed to the weather. After rain the damp had been absorbed into the soft edges of the planks forming the platform, and as soon as the weather began to dry, and the temperature to rise a little (the planks had been down for three or four years), there was a considerable growth of small fungi-like little toadstools growing from it, showing that they were feeding on the sap-wood and so destroying it, while the heart-wood remained, so far, free from any such growth.

It was he thought, most important to endeavour, not only to preserve the wood, but to use it as far as possible free from sap-wood. Of course, from a timber merchant's and builder's point of view, if timber were kept under shelter, free from external wet, and so long as it remained bright and undiscoloured, they call it "good sap" (*i.e.* "good sap-wood"), but it was sap-wood nevertheless, and immature wood, not having yet become heart-wood, and so was not only weak, but open to the easy attack of the fungi, which was the cause of dry-rot and decay, whenever it should be placed in dark confinement and exposed to moisture and warmth.

He supposed that the growth which caused dry rot spread from the sap-wood, where it had its origin, under favourable circumstances, to the heart-wood, and being so attacked that the whole thing eventually becomes decayed. He had from time to time to do with a large quantity of split oak fencing in the neighbourhood of

London—not post and rail fence—and had found, when erecting a few miles of such fencing, so great a difficulty in getting oak free from sap-wood that it had been found desirable to adopt a system of cast-iron posts; and judging from the number of inquiries he had received, many other people had found the same difficulty, and some of them, he supposed, were now adopting the same process.

With regard to drying small wood, such as boards for joinery and similar purposes, there was one thing one must be particularly cautious about. In most cases one could not afford to build so slowly as to get the building dry before the joinery was put in. Swelling took place, and all the doors and windows stuck, and when the occupier endeavoured to open them some portion of the locks and furniture would give way, and he would think the house was falling about his ears. In no case should perfectly dry wood for joinery be taken into a damp building.

If it were possible to get sugar into the substance of the timber it would no doubt strengthen it, but without any experience of the matter, he should imagine it would set up fermentation, and from the fermentation would proceed some kind of growth that would destroy the wood. It was well known that all the organisms that attacked wood, such as the fungi and other parasites, would only attack—or at any rate would more readily attack—sweet wood, *i.e.* wood with sweet sap, and would not so readily attack hard wood, such as oak, which had an acrid, bitter sap.

He should have thought, therefore, that the introduction of sugar would have rather increased the growth of those organisms. He had noticed in London a great deal of creosoted yellow deal laid down in the roads,

and in many cases the creosoting of the wood blocks had been a very fine opportunity for destroying all evidence of sap-wood, so that the wiser surveyors of district councils now buy their deal uncreosoted, and have it sorted over, that which contains any noticeable quantity of sap-wood being thrown out before the creosoting is done, under conditions which prevent the sappy blocks being used.

One of the points referred to by the last speaker was the extension of the life of wood by preservative processes, which were certainly expensive if one had first to buy the timber and then take it to the place where the preservative process was carried on; but before reckoning the value of the process by the degree in which it extended the life of the wood, the deferred extended life should be discounted into present value.

Mr. W. F. INGRAM (Fellow) said he thought that Mr. Scammell's remarks in the first part of his Paper with regard to taking care of our wood were very much to the point. There were some farms in the county of Sussex where a great deal of the land was very bad indeed from the farming point of view, but would grow, though perhaps slowly, some very good timber, and he thought attention in that county should be given, more than had been the case, to the growth of timber, and its preservation and adaptation for use when felled.

Then taking into account the present unhappy state of agriculture and matters generally in the country, it was often found impossible to lay out money on bricks and mortar in the same way as formerly, and it was necessary, as an alternative, to put up cheaper timber buildings to a considerable extent. His own experience was that, very often, for many reasons—he was afraid

that the chief was poverty—brick and tile had to be abandoned and timber substituted in the case of farm buildings and so on, and he was even afraid that in some cases it had come to the very ugly corrugated iron.

Of course, as Mr. Dickson had said, a great deal had to be done in the way of timber fencing, and a great deal still remained to do, for, owing mainly to the bad state of agriculture, hedges and live fences were not now in anything like such good order as they used to be.

For all these purposes timber was wanted, and wanted, if possible, with a longer life. In his own county oak was the principal timber, which was, of course, very valuable, but he thought almost too valuable to use for some of the ordinary purposes of the farm; and if it were possible to sell the oak timber and to use some of the cheaper woods which had their lives lengthened, it would be very much to the advantage of the landowner.

But, of course, the whole matter turned, as Mr. Dickson had said, on cost, and the poor people in his county who lived among the trees wanted to know what they could do to preserve their timber, and which was the best process and also the cheapest.

He did not think it would pay owners to cut their timber and send it up to London to be treated, and what they wanted was a cheap way to treat it on the spot.

Mr. H. J. Elwes, F.R.S., (Visitor) said he had come to the Meeting hoping to hear some authoritative opinion expressed on the various modern wood preservation and wood-drying processes which, it was said, were so rapidly superseding the methods which we learned from our ancestors, and he was sorry to find that the author of the Paper had seen fit to confine himself to giving

little more than a list of the various processes that were known. What he sought was scientific knowledge, using the term in the sense of exact knowledge, and what appeared to him to be essential in a matter of this sort was to hear something definite on the numerous points that constantly arose with regard to the preservation of timber.

In dealing with completely changed conditions, in which the experience of the past was no longer applicable to the demands of the present, it was necessary to have a much more complete and exact knowledge of the subject. He looked forward to the time when someone would be able to collect and tabulate a body of information from practical men, giving exact particulars of the kinds of wood, the age of the wood, the value of the wood, the cost of the process adopted, and the number of years timber would last after any one of those various processes had been applied to it, under given conditions. It was desirable to know, not only how the experiment was begun, but the conditions under which that experiment was carried out, and until these details were forthcoming, our knowledge of the subject remained very much in the position that one found it now. The Meeting was asked to believe, without any very definite record of knowledge or experience, the statements of a number of companies who, like all men of business, were anxious to give the best account of their own commodities.

Perhaps he might be allowed to say a good word for a very fine old preservative which our ancestors used, viz. tar, than which he did not know any better preservative. He had lately made experiments with about three miles of fencing, which he had put up round a new plantation, hoping that it would last twenty-five years. One-third

he had treated with coal tar, one-third with creosote, and one-third with carbolineum. He had put up a creosote soaking tank in which it was possible to keep the temperature at about 150° for twenty-four hours, and the result had been, so far, most satisfactory. The great point seemed to him to lie in this fact—that if it were possible to preserve timber, such as Scots fir and spruce, which was practically valueless in some places, by creosoting or with carbinoleum, or by any other process by which it could be made to endure four or five times as long, its value was of course increased, although it was not necessarily quadrupled. It must, however, be remembered that though preservatives might increase the durability of the wood, they would not increase its strength, which, in the case of Scots pine and spruce, was usually low. If that were the case, no reasonable man would hesitate to adopt that process which could be shown to be most adaptable to his estate, for, although many timber merchants and experienced builders would say that it did not pay to use one's own timber, he, for his own part, would never spend a pound off the estate if he could find any process which seemed at all likely to enable him keep the money in the place by utilising home products.

Many experiments must be made, and it seemed to him that the Members of The Surveyors' Institution could hardly do more useful work than by communicating the result of any experience they might gain in this matter. What was wanted was exact knowledge.

He had some experience of using wood for building, for he had lived in countries where wood was the principal building material, and he would say that, if the ridiculous restrictions laid down by some district councils, in the most foolish by-laws that could be imagined,

could be ignored or got rid of, he would not hesitate to use such material as Scots fir timber for building cottages and keepers' houses, and any such buildings as one might reasonably require to last for two or three generations, knowing from experience that such houses were healthy and comfortable to live in.

It seemed to him that, under the present rapid changes in the conditions of estate management, it would be neither necessary nor wise to adopt materials which were used in our ancestors' time with a view to their lasting for ever. He was shown the other day, by Mr. Squarey, some oak lintels in Wardour Castle, which were said to have been put in in the time of Richard III. They were still in good preservation, and their age would have seemed incredible, had he not been told the facts by Lord Arundell of Wardour himself. The roof had been destroyed by fire, but these timbers were still almost untouched by time and weather. That showed the wonderful durability of oak; which, if winter-felled, would be perhaps the most valuable of all timber for building.

Whether timbers dried by hot air and other modern processes were going to stand he did not know, but it seemed to him to be better to stick to what one was sure of, than to adopt too readily new processes, until their value had been proved by results in different parts of the country and under different conditions.

Mr. A. L. Howard (Visitor) said he was very glad to have the opportunity of saying a few words, speaking as a practical timber merchant, to practical surveyors, who, although they were accustomed to look at such matters from a point of view different from his own, would agree with him in regarding the subject as one of

the most interesting that could be brought before The Institution in the form of a Paper. He thought the matter had been too little gone into by architects and by surveyors, who, he took it, were closely allied to the architects on all matters of construction and the application of materials

Not only the timber itself, but the manner of its preparation and of its use, needed careful study. The modern fashion of rapid building too often involved the placing of sound wood which had been most thoroughly seasoned, in buildings entirely unfit to receive it. A more thorough use of some artificial means of drying buildings would, before the joinery work was put in, be of the greatest possible benefit, and would prevent the lamentable effect of the shrinking now so often observable. Rapid building was undoubtedly a necessity of the times, but it required very considerable consideration as to what was the best means by which timber could be got into proper condition to put into the buildings, and some of the various processes of drying seemed to be the only solution of the question if this could be properly and thoroughly done.

He agreed with Mr. Elwes that it would have been interesting to hear something more about the experiences of those who had adopted in practice some of the drying and preserving processes which were now before the public. With regard, for instance, to the question of drying by chemicals, there was a question to be considered whether, by adopting antiseptic means of destroying the fungi and other objectionable organisms, it was not possible that the life of the timber was itself being endangered.

The question of sap-wood, which had been mentioned by a previous speaker, might be considered from several

different points of view. His experience was that the sap-wood of oak (he was not speaking of the sap in the wood, which was a different matter), English oak especially, was bad altogether, and he doubted very much whether any preservative would be of any use; but such wood as Norwegian or Russian fir, or yellow deal as it was called, it would last for a great number of years if properly preserved.

He remembered some years ago living in a very old house where it was necessary, when repairs were being done, to take out some of the joists. They were of old Dantzic or Swedish timber, and had been in the house for, probably, 150 years. The sap-wood was very sound, although some of the oak, which was undoubtedly English, had begun to decay; but the reason of even the sap-wood being in such good condition was probably that it had been well prepared before being used for building. Deals were now brought from abroad and packed into a ship wet and then unpacked and exposed in the open yard, where they got extremely wet again, and were then often put into buildings still wet. Architects and surveyors too often preferred wood which was bright and fresh in appearance rather than the dark and dirty looking wood which was discoloured owing to its being thoroughly seasoned. When joists were put into a building wet, and at once almost hermetically sealed top and bottom, decay soon began; but in the soundest of timber, in his judgment, even sap-wood, if properly treated in the first place, might well be left in. It was difficult to know, nowadays, how wood could be supplied without some of the sap-wood being left in.

With regard to tar, he entirely agreed with Mr. Elwes. Experience showed that plain tar had been an excellent preservative, and indeed he was doubtful if

it was not one of the very best that had ever been used. He knew of wood blocks laid in London at an immense cost, which were discharged by steamer into barges and carried straight to the saw, and from there laid down—all in the space of a few weeks. He thought these would have been better for treatment with tar. They were laid eighteen months ago, and to-day they were in a very bad state. It was not Australian wood. Australia produced some very fine gum woods, which were used for many purposes, and careful study there had been made of the question how long the wood was to be kept and seasoned before it was put into use and treated in order to ensure well-laid and well-lasting streets.

The preservation of timber might be divided under two heads. There was, first, the process of preserving soft woods, and next, the process of preserving hard and fine woods, which was quite another matter. The process that he himself had found most effective was the hot-air process, neither electrical nor chemical, but the plain process of drying by hot air. Of course if it were possible to get the seasoning done in time by open-air treatment, and in a natural manner, so much the better, but failing this, the hot-air process, was in his experience, the best.

If the plan were adopted, wherever possible, of keeping the timber for a short time before putting it into the hot-air or preserving process, the results would be found, he thought, much more satisfactory than if it were at once treated, whatever process was used.

For the preservation of hard and fine woods he had yet to see any process more advantageous than the old method of open-air drying. In America, timber was not, he thought, seasoned by natural means, but almost

entirely by artificial kiln drying. The results obtained were good, and he thought we might possibly do well to follow on the same lines. It was done quickly, as everything was done in America; but when he visited the States he had not seen any bad results from fresh timber having been used, in spite of the rapidity of its preparation.

Professor G. E. S. BOULGER (Associate) said he could not help agreeing with Mr. Elwes that his friend the author had in his Paper merely given the heads of a discussion which he had left to the Members to fight out among themselves. He seemed to have done much what a herald had to do—he had announced the subject for debate, and the combatants who were to enter the lists, giving their names and their qualifications in their own words, and leaving his hearers with only *ex parte* statements on which to form their own conclusions. It seemed to him that, if any attempt were to be made to grapple with the enemies or diseases of wood after conversion, the therapeutics must be based on pathology, as the pathology must be based on the physiology and anatomy, which latter were tolerably familiar to all who studied the subject.

As other speakers had pointed out, timber was in a dangerous position when exposed between wet and wind, but as long as it was either totally under water or perfectly dry it would remain sound. In one part of his Paper Mr. Scammell spoke, as had others, as if wood, when once thoroughly dried and seasoned, would last for ever. So it would if it were kept thoroughly dry, but he thought there was little doubt that if that wonderful statue in the British Museum, which he should say was more like 4,000 years than 3,000 years

old, were now put half underground in England it would decay very soon. It had been once dried and had been kept dry ever since.

With regard to sap-wood, it was true unfortunately that the fungoid enemies did not confine themselves to the sap-wood, but spread from it to the heart-wood. He apprehended that the object to be sought was to get rid of those enemies in the sap-wood by creosoting or by some process of treatment, but he thought that what was wanted was a good deal more real knowledge as to those processes.

One heard in these *ex parte* statements of chemical compounds of iron or zinc with cellulose. He ventured to say that no such compound was known. That was a purely imaginative statement, not based on chemical knowledge, and he was sure that neither the author of the processes, nor anybody else, had ever seen cellulose combined with zinc or iron salts. Then it would be noticed that one of the processes recommended, as one of its special advantages, that it did not stop the pores of the wood, and so did not cause dry rot. Dry rot was not caused or prevented by stopping or unstopping the pores of the wood. Another process said it did stop the pores, and therefore stopped dry rot. The two statements were equally wide of the mark.

Then it was said that by superheated steam the albuminoids in the wood were coagulated. That he knew was the case, but it remained to be proved whether the coagulated albumen was free from fungoid attack, which he much doubted.

He did not want to go into any dry or elaborate scientific details, but would only call attention to one class of organisms and their action, particularly in the case of posts in fences, viz. the soil bacteria. The reason why

so little was known of preserving timber from rot was that no one knew exactly how or why it rotted; but it was certain that when it was sunk in the ground, especially near the surface, where there was plenty of air and a certain amount of moisture, the conditions were favourable to set up decay. Split oak fences, for instance, were apt to perish at the bottom. It was about those soil bacteria that more information was wanted.

Cellulose or lignin was, undoubtedly, a very durable substance, but still it was not imperishable. Experiments with living plants showed how cellulose might be decomposed very rapidly. It was known that the skeletons of plants were built up from the sugar that flowed through the plant and was then stored up. To give an instance, there was a large amount of sugar in the pulp of the date, whilst the stone of a ripe date was almost pure cellulose, which, when it germinated, was turned back into sugar by the action of fermentation.

But wood, even when thoroughly seasoned, still remained vulnerable. He should say, with regard to the fir joists referred to as being in proper condition after many years, that it was not only because they were dried to begin with, but that they had been kept dry since, or ventilated. If the same joists, well dried to begin with, had been exposed to damp again they would certainly not have remained sound.

He was much interested in the statement made by one speaker as to the danger of dry and sound wood being placed, through rapidity of building, in damp situations. That, it seemed to him, was an argument against the use of wood that had been merely dried and not impregnated, and it seemed to him that the danger might be avoided by some method of impregnation.

That brought him to the new question of sugar

impregnation. When his attention was first called to the process some months ago he was very sceptical as to there being any good in it, remembering how sugar was employed in our laboratories in the cultivation of bacteria; but the point of the process was, as he understood it, that the sugar was applied to the timber in such a way that there was, practically, no place left for anything else. The nitrogenous constituents were driven out first, and left the wood, in the absence of nitrogen, free to absorb the sugar. A previous speaker referred to sweet woods being attacked by fungi, due to the sugar in the sap; but in this method of using sugar it was put in artificially after the nitrogenous substances were removed. and thus it seemed that the process acted very well.

There were two classes of experiments required with wood. One, the most valuable, could only be obtained in the process of time, by using the wood and recording results during long periods.

He must admit that if Mr. Scammell had attempted to give results his Paper would be of undue length. A valuable Paper had been published on creosoting by Mr. Boulton, in which, and in Dr. Von Schrenk's, tabulated results were given as to the time timber had lived. But another class of experiments, as to the breaking strain and tension and so on, could be applied to timber, and the results of these could, of course, be determined very much more quickly, and could be taken as, in a way, anticipatory of the result to be ascertained by a long period of using. He had examined the results of such engineering tests in the case of the Powell process, and, he must say, had found them very startling.

The Powell process was not a process of simply pre-

serving the timber, or, as some of the processes claimed, keeping it free from injury, but it actually improved it. That brought him to a point to which Mr. Elwes and others had referred, the desirability of raising the value of the inferior woods. For instance, beech was a very valuable wood in many ways; and though, of course, it was far inferior to oak, it was not so costly to produce. One of the most remarkable results he had ever seen in connection with any impregnation process was the result of Powell's process on beech. It seemed that beech would take up nearly its own weight in sugar, with the result that it was not only doubled in weight, but was improved in many respects. Another wood was poplar, which to-day was regarded simply as paper pulp wood. He believed it was sometimes used for wheelbarrows or flooring; but as a matter of fact it was of very little value, and was a very difficult wood to season, taking, in the air-drying process, about seven years. If that could quickly be made into wood suitable for building purposes a good deal would be achieved, and he thought a good deal had already been achieved by this new process. He agreed that tar was as good a preservative as could be had. It was cheap, and was easily applied on the spot; but tar could not very well be used in houses, and there was the same general objection to the use of creosoted material in buildings, which could, he supposed, hardly apply to sugar.

He could not speak from personal knowledge or experience of many of those processes, but had been obliged to trust a good deal to what he had been told by their promoters; but he had gone as far as he could on reports made to the American Government by experts like Dr. Von Schrenk, who was perfectly impartial in those matters, and whose evidence was of the greatest

value; but he would suggest that engineering tests might be regarded as anticipating to some extent the conclusions to be formed from more actual experience, for which one could only wait.

Mr. ELWES desired to add one word to what had been said about beech, which, in France, was largely used for railway sleepers; but he believed it absorbed a very large amount of creosote. He did not know whether English surveyors were acquainted with this use of beech.

Mr. E. R. GABBETT (Visitor) said he desired to make one or two remarks as to creosoting. He thought there could be only two causes why the posts, which had been referred to, had failed. First, that the creosoting was not properly done; or, secondly, that the posts were wrought after being creosoted. The creosote or any preservative did not penetrate right through the wood; it went in to a certain extent, but if holes were bored in it for any purpose, such as fixing the rails, water could get down and the wood would decay, but if the holes were bored before creosoting, the wood would be absolutely preserved. A specimen lying on the table came from the works of Messrs. Burt, Boulton, and Haywood, Limited, and had been in the ground as a fencing post for forty years, and was as absolutely sound when taken out as when put in. Another specimen post from Reigate had been in the ground for twenty-four years and was absolutely sound.

As to the question whether inferior timber could be brought into commercial use by preserving processes, this could be done by creosoting. He had used hemlock timber (which was looked upon as one of the most

inferior of timbers), which had been creosoted for foundations under tanks, where it had lain between wind and water for ten years, and was as sound to-day as when it was put in.

THE PRESIDENT said he was very glad to hear one speaker during the discussion which had followed Mr. Scammell's very interesting Paper refer to tar as a preservative of timber. He had always found that a good coat of tar was an excellent protection from various forms of decay. In some of the Midland counties, where there were many half-timbered houses, he had known some pulled down after standing for a couple of hundred years, in which the timbers were perfectly sound where tar had been used.

He remembered that, some fifty years ago, a church was built in a district where there was plenty of oak timber. The wood used was thoroughly seasoned by the steaming process, and had, he knew, lasted remarkably well. It had not warped, the sap had been taken out, and it was as perfectly sound as the day it was put in.

But what was most wanted was to make the soft woods harder, for they could be grown more rapidly and cheaply. In the case of oak, the present generation could not hope to see results, but if sycamore or poplar, and such quick-growing trees could be so treated as to take the place of oak for some purposes, a great saving would be effected.

Mr. SCAMMELL, in reply, thanked the Members present very cordially for the patient way in which they had listened to the reading of his Paper and for the excellent discussion which had followed it. His object had been fully gained. He did not intend to prepare a technical

Paper or to put forward in any way the merits and advantages of this or that process. He simply wanted to introduce a subject for discussion and to say a few words about the causes of decay, letting the various processes speak for themselves.

It was not for him to recommend one as against another, and he had not done so. He wanted to show, by the samples on the table, what had been done, and to raise a general discussion which he suggested, with all modesty, might possibly lead to still further discussion later on, when one or two advocates of special processes might be afforded an opportunity of explaining the merits of their inventions to a body of experts deeply interested in the subject.

The vote of thanks having been put and carried unanimously, the Meeting then adjourned

AT

THE ORDINARY GENERAL MEETING,

Held on Monday, January 11th, 1904.

HERBERT T. STEWARD (Vice-President) in the Chair.

The discussion on the Paper read at the Ordinary General Meeting of Monday, November 23rd, 1903, on the Paper by HERBERT T. SCOBLE (Professional Associate), entitled, "Industrial Decentralisation, an Important "Factor in the Solution of the Housing Problem," was resumed.

The CHAIRMAN said he had much pleasure in introducing to the Members his friend, Mr. Percival Currey, who had been elected Hon. Secretary of The Institution in succession to Mr. J. W. Penfold, and he wished to personally thank him for his kindness in having undertaken the duties of the office.

He was glad to avail himself of that opportunity to say a few words in grateful recognition of the long and valuable services which Mr. Penfold had rendered to The Institution, and he felt able to do so with all the more sincerity and heartfelt appreciation, because he spoke as one who happened to be among the very earliest Members of the Institution, being in fact among the first hundred

elected. He remembered the founding of The Institution, and he knew full well how, in its early days and for years afterwards, Mr. Penfold laboured for its prosperity. He was sure it must be very gratifying to their old friend to find that The Institution, which owed so much to him, was in such a flourishing condition, as it must be very pleasing to him to know that his labours were thoroughly recognised and heartily appreciated.

The discussion was then resumed by—

Mr. WHEELER, K.C. (Associate), who said that on page 29 of Mr. Scoble's admirable Paper it would be found stated that the question was one with which the "sur-" veyor was specially qualified to deal." He hoped, however, the Meeting would bear with him a few moments while he expressed his views on a subject which deeply interested him, although he had not the good fortune to be a surveyor.

On page 67 Mr. Scoble arrived at a conclusion with which he entirely agreed. "I am sanguine enough," said Mr. Scoble, "to believe that we, as a people, still retain our " powers of adaptability to meet altered circumstances " of competition, and that, given a fair field, we need " fear no foe; and, finally, I hold most strongly that " the true solution of that most complex and confusing " problem, known as the 'housing question,' is to be " sought, not by municipal or philanthropic effort, result-" ing in the erection of more and yet more dwellings in " and about our large towns, nor by the increase of " transit facilities, but by the establishment of country " factories and model villages in connection therewith." He would go further, although he did not know whether it would quite meet Mr. Scoble's view, and add that he

was not at present in favour of any further body of legislation.

The main contention of Mr. Scoble's Paper was that we were in a fair way to improve matters by transferring our labour from the towns to the suburbs and the rural districts, and the literature of the subject was somewhat fully dealt with. He feared that if the author had visited his (the speaker's) chambers, and seen the literature that had accumulated within the last few years, all relating to this question, he would have felt inclined to avoid it as hopeless.

While indicating most clearly and fairly the direction in which improvements were going on, Mr. Scoble, at page 46, wisely warned his readers against some of the evils which arise from facilities for travelling, and he rightly described the great areas of suburbs and country in which the workers had, or were to have, their homes as "dormitory" towns. It was, he thought, an apt and accurate description, which he had himself used some 18 months ago, when engaged in dealing with the subject from a political point of view. He thought that to bring men from a distance to their work in overcrowded carriages and take them back in the same way late at night for a few hours of possibly disturbed sleep, was not an ideal way of promoting their welfare, and he was glad that Mr. Scoble had pointed out some of the difficulties, dangers, and inconveniences attending such a system.

He held that the workman should not be widely separated from his work, but that the two should as nearly as possible co-exist in the same place.

On pages 49 and 50 Mr. Scoble referred to the works of Messrs. Ransome and Company and Messrs. Elliott Brothers, who had lately re-established themselves at

Newark-on-Trent and Lewisham respectively. That, he thought, was a very wise step, but he was by no means sure whether, in such cases, firms were able to carry with them their workmen, or whether some of them still travelled to and from their various homes.

He did not intend, in the least degree, to touch upon the subject of the Garden City, for he hoped that at the next Meeting his learned friend, Mr. Neville, K.C., of the Chancery Bar, would read his Paper dealing expressly with it, and then would be the time to discuss the matter. At the same time he thought it by no means a matter of regret that a somewhat idealistic view should be taken by the promoters of that scheme, The higher our ideal the better. As the old lines said,

> "Who aimeth at the sky
> Shoots higher much than he that means a tree,"

and if his learned friend tried even to attain the tree, it would, he thought, be well.

But the subject now under discussion was the housing of the working classes, and he thought it would be well first to ask if all were quite agreed as to what they were talking about. For instance, who constituted the working classes? A very considerable proportion of the working classes were abundantly able to provide their own homes and to pay for decent accommodation. He thought it should be the aim of all, as well in the higher as in the humble spheres of life, to possess the best home possible. But there was another section of the so-called working class—he feared a very large and increasing one—who could not, or would not, pay for decent accommodation. With this class, especially in London, he had a great deal to do, as a compensation lawyer dealing with areas, as a member and chairman of a borough council, and also from a political standpoint; and although, individually, he objected to municipal trading, especially

in this direction, he thought that possibly it might be necessary that the municipality, as such, should provide for them. This class, which, as he had said, was he feared a growing one, could only live, if he might use the expression, by Act of Parliament and under stringent conditions.

Some little time ago a Radical friend of his, a parliamentary candidate went, at his suggestion, not through the east end of London only, where it was supposed all the evil existed, but to the north and south and west as well; and having seen the state of affairs existing in every part came to his own conclusion—that there was a very large class throughout the whole of our great city who could only live, as he had phrased it, by "Act of "Parliament."

For that class, who could not pay remunerative prices, he was bound most reluctantly to come to the conclusion that municipalities might possibly do something, and he observed that the municipality of Camberwell had taken a new and very important step in this direction. Instead of embarking on a costly scheme involving the purchase of large areas and the erection of expensive buildings, they had (not in their own names) sent their selected agents into the market and bought up wretched squalid property as cheaply as possible, and were content to repair those premises and render them sanitary—or at all events wholesome—and then let them out at rents vastly more moderate than would have been possible had they adopted a more expensive policy. It appeared to him, and to those who, like himself, were opposed to municipal trading, that something useful might be done in that direction.

He did not profess to be a philanthropist, and as a step in the direction of making the working man

appreciate his responsibilities and cultivate self-reliance, he would abolish the system of compounding for the rates. He thought it would be a most admirable thing if the British workman were brought face to face with the liability to pay his rates. He had advocated that politically, and he did not hesitate to do so now before a body of professional men specially conversant with the subject. If our municipalities were disposed to be extravagant there could be no better check on them than to feel that all their constituents had a full sense of responsibility and citizenship. The truth was that the working man suffered from being the spoilt child of the community, and the sooner that ceased to be the case, the better, in his judgment, it would be.

He hoped he had clearly indicated that his views were in accord with those of Mr. Scoble, who had very properly pointed out that overcrowding was of a two-fold nature, the possible overcrowding of areas, which existed to some extent, but not to a large extent, in London, and the overcrowding of individual rooms, which undoubtedly was a most offensive and dangerous condition of affairs and obtained in London to a large extent.

From the London County Council's report of two years ago, it would be found there were from 12,000 to 14,000 acres of area in London which, to some extent, might be used for the benefit of the working man, and to this might be added the areas so largely occupied by factories of all kinds, which should in the future be expropriated. It seemed difficult to understand why Doulton's potteries, for instance, were on the Thames Embankment or a brewery in the middle of Pimlico, or why such works as Crosse and Blackwell's exist in the heart of Soho. But the real reason was that manufacturers were practically

invited to come into London instead of being induced to go outside. Take for instance the Army and Navy Stores in Victoria Street. The rateable value of these premises (one acre) was £12,000 a year. A brewery, just westward of that, covered four or five acres, and the rateable value was also £12,000 a year, the one acre being rated at exactly the same as the four or five. He was told that on one large area in the Soho district the rateable value on a true basis would be at least £8,000 or £9,000 a year, whereas the existing rating was something under £2,000.

He apologised for the length at which he had stated his views, which were in harmony, he was happy to say, with those of the author, but he was anxious that it should not be forgotten in dealing with this matter that great statesmen, like the Prime Minister, Mr. Chamberlain, Lord Rosebery, and others, all agreed this was really the Imperial question which struck at the very root of the national welfare and even of the national existence.

Mr. DOUGLAS MACKENZIE (Visitor) said the part of the subject in which he was most interested was the question of the possibilities opened up for the use of some form of mechanical transport, and as the use of motor vehicles was now much to the fore he had endeavoured to keep himself fully conversant with the question in all its bearings. And in the Paper which Mr. Scoble quoted from (on page 59) he had endeavoured to go into the cost of working motor vehicles, so that those who might be tempted to adopt that form of transport could judge for themselves what the expense was likely to be.

Every case must be taken on its merits, and there-

fore everyone who thought of using that means of transport must take what data he could obtain bearing on his own circumstances and decide for himself; but on the present occasion he wished to deal with the subject generally, with special relation to industrial decentralisation.

Most of the factory proprietors who had already moved from the towns to the country had considered, naturally, that the question of the transport of the raw material to the factory, and of the finished product to the consumer or the market, was one of the most crucial questions to determine in selecting a site. The result had been that almost all the waterside frontages along navigable rivers and canals were already allotted, and as could be seen, many factories had also located themselves among the main lines of railway with a view of obtaining siding accommodation. The result had been, in the aggregate, that factories had been put down on low-lying, unhealthy sites, and many square miles of good gravel or chalk sub-soil to the north and south of London were valueless to the factory owner for the reason that he could not there obtain adequate transport facilities. The question then arose, could motor transport come to his aid?

He thought that it could; but as every case must be considered on its merits, the manufacturer must go into the question fully in all its details and consider for himself whether motor transport would meet his needs. In the first place he held that motor transport was able to compete, for short distances, with railway rates, which were enormously swollen by terminal charges. From Watford or St. Albans, for instance, the terminal charges were so heavy that it was possible to take goods by road by motor at a lower rate. In the Paper referred

to he had pointed out that 5½ tons was the general paying load for motor carriage—*i.e.* if a manufacturer could not make up loads of more than 5½ tons he would find it cheaper to use horse traction. He must consider whether his goods were of such a nature that he could get a load of 5½ tons on a motor vehicle.

But there was another very important factor, *viz.*, was the road leading to the proposed site strong enough to carry motor vehicles? Unfortunately, in many parts of the country the roads were very soft, and even close to London the by-roads had no proper foundations and no proper crust, and it was almost impossible to work motor vehicles on them.

Now a manufacturer, in adopting a possible site where motor traffic would be practicable should consider whether it would not pay him to compound with the local authority to have the side road to his site properly made up. The interest on such a charge would be small, and when the roads were made they would cost next to nothing for maintenance and without increasing the rates a road would be available, capable of being used for motor traffic.

One point must be borne in mind. Unfortunately in some districts there was considerable prejudice against mechanical transport. He was told by the police that the Hornsey Council has given instructions by which mechanical transport would practically be hindered in every way. A reference to the Middlesex County By-laws would show that practically every road in Hornsey was scheduled as unfit for motor traffic, although those who knew the district would know that those roads were made up with a good crust and a strong foundation, and were well able to support the weight of mechanical transport.

Another point was that mechanical transport was

really an expert engineer's business. Many who had tried to use motor vehicles had failed for the reason that it was not their business, and that the management of one or two or more motor vehicles had necessitated so much supervision and such constant repair that the system had been practically killed. There were at the present moment several motor transport firms in London who were prepared to quote to a manufacturer, who intended to move his factory into the country, a rate—probably on a tonnage basis—which would enable him to judge exactly what would be the cost per ton of obtaining the raw material, and delivering his products.

It might be said that in a great many cases goods had to be delivered in small quantities, with the result that if a motor vehicle were employed a great part of the day would be wasted in putting down small packages. That merely required organization. A store, occupying a suitable position in London, could be supplied from the factory by motor, and regular house deliveries arranged by single horse vans.

Electric tramways had been referred to. It was true that they were extending along our roads, but unfortunately they were in the hands of municipalities and county councils, and were given up entirely to the transport of passengers. He was not sure how the Board of Trade controlled that matter, and whether their regulations would allow the use of goods vehicles on those tramways; but it seemed to him, in the case of those constructed, or about to be constructed under the Light Railways Act, that they might well be used for goods transport as well as for passengers.

Mr. J. S. Hodgson (Visitor) said he should like to corroborate, from an engineer's point of view, who had

lived for 12 years in the United States, what Mr. Scoble had said.

On page 58 of his Paper, he alluded to the fact that "too much has been made of the readiness of our Yankee "rivals to scrap machines the moment a better model is "in the market." His own experience as an engineer working over there was simply this: that, if the Americans had the same machinery that we had (and they would be only too glad to have it in many cases) they would not care to scrap machines any sooner than we did ourselves. That, he thought, was worthy of being brought home, and he was glad to find that Mr. Scoble was able to incorporate it in his admirable Paper.

Another point had arisen in the course of the discussion, made by Mr. Wheeler, to which he would add his corroboration, viz.: That each individual should have the responsibility of a ratepayer brought home to him. It was not so in America, and there were not many, he thought, who wished to emulate America in that respect at any rate.

Mr. A. E. Baylis (Professional Associate) said it was with some timidity that he ventured to take part in the discussion, but the subject was one in which he was much interested. He would point out, first, that on p. 32, Mr. Scoble referred to a contribution to the subject by Mr. Madgen, with whose views on municipal electrical, and other undertakings, he was in evident agreement; but he did not find the least justification for the remark "that owing to municipal monopolies, "&c., the conditions affecting our manufacturers compare "unfavourably with those in force with our rivals over "seas."

In an address before the British Association last

year, Mr. A. R. Sennett gave a table setting out in detail a return of workings of the electrical undertakings of eight companies and corporations.

The average cost of manufacture (in pence per unit) by the municipal body was 1·70, by the company 4·96. The average price charged by the municipal body was 3·19, and by the company 7·49 pence per unit. If the payment of nearly 2½ times as much for the raw product were the means of making the conditions more favourable for our manufacturers, then one might well object to municipal enterprise; but, if cheap power were a desideratum, then the development of saner municipal areas in order to obtain still greater efficiency was the obvious course.

On p. 48 of the Paper the author gave a "Reference "to instances of decentralisation," and under the sub-heading (*b*) (p. 52), "Labour with a description of the "model villages of Bournville and Port Sunlight," described those two examples which were always cropping up as illustrations to prove that the movement "has a "solid foundation of practical experience upon which to "proceed, and that the economic possibilities are now "out of the region of guess-work," to quote one writer on the subject.

He was probably the only member of The Institution present who had actually worked in one of those two villages and had an opportunity of being in close contact with them and observing their potentialities of success.

As yet, no single exponent or critic, so far as he was aware, had indicated the fundamental distinction between those two schemes and the general problem of industrial decentralisation. Unless this were done the question would never be seen in its true perspective, and the final settlement would be immeasurably delayed. That

fundamental distinction arose from the fact that the two particular industries round which these villages had grown up were outside the sphere of, and not amenable to, ordinary commercial laws. He would take the case of Port Sunlight, although the illustration was also applicable to the sister experiment at Bournville. The industry of soap-making had the peculiarity in common with but few manufacturing processes, that the primary or main product was, if anything, of less value than the secondary, or by-products; the soaps could be almost given away and the works still run at a profit. As a matter of fact, that was practically the basis on which the industry was carried on.

When one saw immense sums of money offered as prizes by the makers of soaps, it must not be forgotten that the real object was to get rid of as much soap as possible for the sake of the potential wealth contained in the cotton seed cake for cattle feeding, the glycerine for medicinal and other purposes, and many other valuable by-products. The by-products from coal-gas enabled the gas itself to be sold below the cost of production, but even this did not provide so great a margin as did soap.

Suppose for a moment that a similar state of affairs prevailed in, say, the building industry; assume that the by-products on the joiner's bill, the shavings and sawdust, might be converted into a patent medicine or prepared food, and that the rubbish heaps from the bricklayers and plasterers were a source of radium; under such conditions there would be no such thing as the housing problem to solve, for everyone would be anxious to build for the sake of the valuable by-products.

The question of the relativity of rent to the standard of living was one which must be considered. The standard rate of wages for building operatives, for instance

varied throughout the country; bricklayers in London getting 10½*d.* per hour, in Birmingham 9½*d.*, in Cardiff 8½*d.*, in Huntingdon 7½*d.*, and so on, and he submitted that the extra penny per hour that the London bricklayer got above his Birmingham colleague was recognised as the extra cost of living, and was represented by, and entirely swallowed up in, the much higher rent he had to pay—that was to say, rent was taken as the basis of the cost of living. The setting of an apparently cheap standard of the cost of living by means of an artificially low rent, fixed by a house owner, who was also the employer of the tenant who must inhabit that house, gave the employer an unfair advantage, not only over his employee, but over his competitors; for the cost of living in his village, being, by inference, apparently a quarter or a third less than in a given town, and wages in the town being, say, 24*s.* per week, then 18*s.* per week here would appear to be an equivalent *real* wage, with the added advantage of delightful and healthy surroundings. But the workman found, later, that his bread and meat, his clothes and boots, cost as much as in the neighbouring towns, if not more, and that the advantage was somewhat problematical, if not purely mythical, particularly in the case of a special industry, such as he had described, in which the output was in the hands of a few firms, so that the labour was not mobile. Under the circumstances it appeared to him that to argue from the success of those ventures to its practicability for the ordinary manufacturer, working in competition on a rational commercial margin of profit, with the selling price bearing some obvious relation to the cost of production was fallacious not only as regards the manufacturers themselves, but also the community.

The general principle of the advocates of schemes of

industrial decentralisation seemed to be the subsidising of the manufacturer who erected a country factory and a model village, unfairly as against his competitors, and unjustly to his worker, who was to give his day's work for less wages, because he would be able, after his nine or ten hours' work in the factory, to make up the deficiency to subsistence level by interesting and remunerative labour in his back garden, and this at a time when the cry of the country was for proficiency, education, and the application of brains and intelligence to productive processes.

He cordially agreed with Mr. Wheeler with respect to compounding for rates and would go even further; not merely should the workman pay his rates himself, but indirect taxation in any form should be abolished. If a man paid his rates direct to the borough council, why should he not pay his taxes direct to the imperial exchequer? He would then feel in a position to fully criticise the expenditure of the government, as well as that of the borough council.

Mr. ALFRED KING (Fellow) said that in the early sixties there were large railways, docks, and other works in course of construction in the metropolis, but the heavy failures, owing primarily to excessive building speculation, brought about during the following few years a cessation of works in general. Then, in the early seventies, many large works were again in progress, among them being the extension of the Midland Railway from Derby to London, the construction of the Thames Embankment, the Holborn Viaduct, and others which brought about an immense amount of trade, with the result that manufacturers found it incumbent on them to enlarge their works, or to look further afield. The

pioneers of the migration were the pianoforte manufacturers, Brinsmead, and Cramer and Co., going to Kentish Town, and others to Chalk Farm and places which, at that time, were practically suburbs, and from that time decentralisation had been taking place. Willesden Junction, as everyone knew, was an important junction on the North Western Railway. Ten years ago it stood practically in the fields. To-day factories had sprung up by scores on every hand. But while this decentralisation had undoubtedly taken place, one must not lose sight of the fact that many manufacturers found it desirable to keep in the centre of London. Take Tottenham Court Road, for instance. It was unlikely Maple's and Shoolbred's would have located themselves there if it were not an advantage to their trade. These firms bought up every piece of ground they could in their own immediate neighbourhood to extend their works when necessary.

The manufacturer at the present time was well alive to his interests, and if it were advantageous for him to go into the country he would certainly do so, but he must be the best judge of his own interests. He remembered Finsbury 30 years ago, when it was in a measure a residential neighbourhood. To-day it was a manufacturing locality with scores of factories employing thousands of hands collectively: the reason given for their being located there was that London being central the goods were made in London, manufactured, sold, and distributed at the same centre.

The cost of shipment of the raw material must be considered. The hard wood dealers were very thickly studded throughout St. Luke's and the neighbourhood, and supplied the local manufacturers with the raw material, which they did not get from the railway

but from the docks, four or five miles away. That raw material went to the factories to be converted into finished furniture, and from the factory direct to the purchaser.

No doubt it was true that certain manufactories would be better in the country, but, on the other hand, it was also the fact that London was the very best place for others. Only recently—last week—he heard that one of the largest engineering firms had moved from London down to the Midlands, with the result that the immense capital sunk in that removal had been practically lost. Did the country afford all the advantages that the author spoke of? He told them that land was cheap in the country, and that large areas could be got practically for nothing. That might apply in the first instance, but as the demand for factory sites grew in any particular place, it was inevitable that the price of land would rise, until at last it might be almost prohibitive.

In stating that tenement buildings contained 700 people to an acre, he was afraid the author was presenting the worst side of the picture, and he would, for a moment, turn it round and show the other side. The administrative county of London comprised 74,839 acres, with a population of 4,536,541, equal to 61 persons per acre. Those were the figures with which Mr. Wheeler had dealt; but he might further state that the families numbered 1,619,546, or 4·4 persons to a family. Greater London comprised 442,746 acres, with a population of 6,581,372, equal to 15 persons to an acre. Those figures spoke for themselves. He would say, without fear of contradiction, that there was no city in the world to compare with London from a health point of view, and a few figures from the Registrar-General's Report might be of considerable interest.

The lowest figures were 13 per 1,000 persons living in Surrey, 13·4 in Middlesex, 13·5 in Hertfordshire, 13·6 in Northampton, 13·8 in Westmoreland, 13·9 in Sussex, and 14 in Dorsetshire, while the highest were 18·5 in Warwickshire, 18·6 in Monmouthshire, 18·6 in South Wales, 19·4 in Lancashire, 19·6 in Northumberland, and 19·8 in Durham.

He fully agreed that the rehousing problem was really an Imperial question. It had received considerable attention at the hands of the Industrial Dwellings Company and the Peabody Trustees, and the Ecclesiastical Commissioners had come to the fore in connection with it, as well as the London County Council, who had done their best to solve the problem. In 1901 they had made provision for 12,488 persons in 2,406 tenements; in 1901-2 further accommodation had been provided for 2,856 persons in 604 tenements; and in 1902-3 for 4,576 persons in 967 tenements, giving a grand total of 19,920 persons and 3,977 tenements.

According to a report of Lord Carrington at a meeting held in December last, the London County Council had made provision for 22,222 persons in 4,363 tenements, and only 119 tenements were unlet. Last year the income from rents was £81,000, and only £103 was written off as loss, the percentage of loss being only 2*s.* 11*d.* To show the importance of this, the London County Council had a scheme for rehousing 903 persons in the Southwark division, but the Borough Council of Southwark asked that the accommodation should be increased to 2,500, which showed the pressing need there was for the construction of buildings for working people.

He found from a speech made by the Home Secretary in Shoreditch, some time since, that there were no less than 286,900 aliens in this country, the number having

increased to the extent of 150,000 in the last 20 years. Of those, 135,300 dwelt in London,—54,000 in Stepney alone. Cases of crime were in the ratio of ·52 in the case of Englishmen, as against 1·16 per cent. among the aliens.

A serious indictment had been brought in the Paper against the workers in a certain rope factory, and also as to workers in factories in general, and in addition, the author said he was afraid those remarks applied to a large proportion of our industrial population. He (Mr. King) traversed that statement. It had fallen to his lot during the last 30 years to see much of the British workman; he had seen him employed at factories, he had seen him in his home, he had seen him at play, and his estimate of the British workman was totally different from that of the author. He thought the best proof of the people's moral advancement was that the drink bill of this country, although large, was still on the decrease.

Mr. A. J. MARTIN (Visitor) said it seemed to him that, in his interesting Paper, Mr. Scoble had made one omission. He had treated the subject from the point of view of the manufacturers, the workers, and the community, but there was one other standpoint from which, it seemed to him, the matter might be regarded, not without advantage, by Members of The Institution. He referred to that of the landed interest, and in connection with that he should like to mention an experience of his own in regard to an industrial migration. Some years ago he was sent by the Edison General Electric Company into Canada to build their new factories. Down to that time their Canadian works had been situated at Sher-

brook, in the province of Quebec, but having outgrown these they had to look further afield. What most struck him in connection with the matter was the extraordinary way in which, as soon as it became known that the Edison Company were removing their works, the various towns in Canada competed with one another in holding out inducements to build the factory within their respective areas. They ultimately went to Peterboro', Ont., and he thought it might be pertinent to the present discussion to mention some of the inducements which the town council of Peterboro' held out. They offered, first of all, a free site of between 30 and 40 acres (and the land was by no means without value). They also offered sidings to two main lines of railway (he might mention it was made a *sine qua non* by the company that they should not be at the mercy of a single company), a main drain, a long and expensive suction main for water, and exemption from taxes for ten years. The total cost to the town was about 28,000 dollars, and it was mentioned at the time that other towns would gladly have paid four times as much.

Now the moral of that, to his mind, was that if the benefit which those towns expected from the settlement of a factory in their midst was so great as to induce them to sink so much money, what did it mean to a landowner to get a large and growing factory on his estate? In the first place his tenants got a market for their foodstuffs and other produce, and a great demand arose for building materials, for labour, and for cottages. Another thing which ought not to be overlooked was that there were many services which the owner of an estate was not usually in a position to provide for his tenants—such as water supply, protection against fire,

possibly sewerage, in the case of villages, gas, electric lighting, power, sidings, and tramways. All those were things which would be invaluable on an estate, but which, in the majority of cases, were beyond the means of a landowner to obtain, and it seemed to him this was an opportunity for an owner who was alive to his interests, in making terms with a manufacturer who wanted a site on his estate, to insist that those things, all of which a manufacturer needed for himself, should be provided for the benefit of the estate as well.

There was one other point which he brought forward with some hesitation. The subject of Mr. Scoble's Paper was industrial decentralisation, which he had carried to a certain point. He would like to point out that the electric distribution of power now enabled us to carry decentralisation a stage further than Mr. Scoble had done, namely by the promotion of cottage industries. It was possible to supply electric power, even to cottages, at a rate lower than that at which small manufacturers could obtain steam power, and thus to enable an artisan, a weaver, or a tailor, or a bootmaker, to have power in his own house, if he required it.

Mr. Howard Chatfeild Clarke (Fellow) said he was indebted to the Meeting for giving him an opportunity of joining in the thanks to Mr. Scoble for his interesting Paper.

The question of housing the people was, like the poor, always with us. Some 40 years ago it became pressing, and then various Artisans' Dwellings Schemes were initiated, and, with other similar organisations, did good work for improving dwellings. The pressure went

on until the municipalities stepped in. Good as that work had been, the other side of the picture had not been referred to. The municipalities had to buy sites in the towns at such a price, in London, for instance, that it was practically impossible to build dwellings to pay any percentage at all, and the first thing they had to do was to write off a very large figure—he thought, in one case, £200,000 for one site—before they handed it over to the Housing Committee to erect dwellings upon. That did not seem to him to be business, and he did not think that, in the long run, it was for the good of the community at large. The most it was possible to pay for such sites with a hope of a return was something under 6*d.* per foot super. It ought not to be more than 3½*d.* or 4*d.*, which was as much as a company could afford to pay if it expected to return a dividend of 3½ or 4 per cent. Then again, no one could build in competition with a town, and that was one of the great difficulties that had arisen.

The next great difficulty seemed to be the influx into the towns from the rural districts; how that could be stopped? Only last week he heard that the men near one of the Midland towns preferred to sleep in the slums, and to walk backwards and forwards to their work outside the town, so as to have the pleasure and brightness of the gas light of the town, or other inducements in the evening, rather than sleep out in the country cottages.

He quite agreed with one of the former speakers that London, *per se*, especially the East of London, was one of the healthiest places in the Kingdom. Where could one find wider streets, or where could more air pass over the houses than in the East End of London? He thought

the whole question largely came back to that awkward point which troubled us all, namely £ *s. d.* The model towns mentioned by the author were hardly matters which could be treated as practical politics. Both had been started by gentlemen who had practically unlimited money to devote to the good of their people and their dwellings, but on a small scale how could that be possible? Where was the capital to come from to provide cottages at a rent which he understood did not produce 4 per cent. on the money?

He felt that part of the solution of the question was to take the people out and leave the factories where they were now. The improved methods of access—tramcars, motor omnibuses, or carriages, which existed in many towns, would do much to take the people out three or four miles where decent places could be built for them with ventilation and fresh air. He had been a good deal of late in Sheffield, where, three or four miles out, one got into beautiful country, which could well be utilised for dwellings and could be made accessible at a very cheap rate.

He was much struck when at Leeds, at the Country Meeting of The Institution, with the plan which was there adopted of back-to-back houses. He believed there was nothing worse than a system by which there was no through ventilation to the sleeping rooms, and the conveniences were practically outside the front doors. He should like to see a satisfactory solution of this problem, and while admiring the courage of the Paper, he felt that at the present moment there were many financial and other difficulties still to be overcome, but he should like, in conclusion, to repeat the words quoted by Mr. John Horatio Lloyd in proposing the vote of thanks to

Mr. John Clutton, at the first Ordinary General Meeting of The Institution 36 years ago,

"Our doubts are traitors
"And make us lose the good we oft might win
"By fearing to attempt."

Mr. SCOBLE, in reply, said he was sure he would not be expected, at that late hour to deal in any detail with the many points that had been brought forward, but he would say a word or two with regard to a few of them.

A question was asked by Mr. Wheeler, whether the workmen at Ransome's and at Elliott's migrated with them, or stayed on among their old surroundings. At Messrs. Ransome's works many of the workmen moved with the business, the distance being too great to permit of travelling to and fro. In the case of Messrs. Elliott they found that gradually the workmen came to reside in the new neighbourhood.

Mr. Douglas Mackenzie had referred to electric tramways, and doubted whether they were used for goods traffic at all. He believed that on some of the tramways in the Midland counties a considerable amount of goods traffic was carried; at any rate, arrangements had been made in one or two cases for this to be done.

He was afraid he had not much to say in criticism of Mr. Baylis' remarks. The point with regard to soap-making was not altogether clear to him. If a large profit were obtained on soap-making it did not follow that it must be spent on housing. The makers could put it in their own pockets if they liked, and there was no obligation on them to do anything more for their workmen because their profits were larger.

Statistics were given by Mr. King as to the total

population in London per acre. There were many tenement buildings constructed on such lines as to place a vast population on a small area, and that was where the harm came in. He was referring to the individual cases of overcrowding, and found there was plenty to complain of there. Then he said there was no city to compare with London, but he (Mr. Scoble) was rather intending that comparison should be made between London and the country. Some details were given as to country districts, but it was somewhat open to question whether there was not a good deal of manufacturing carried on in many of these districts, coupled with housing of a very unsatisfactory character.

It was said the London County Council provided for 22,222 persons, but this was really making the congestion worse by having so many crowded in. He thought that point was dealt with in the Paper.

The remarks by Mr. Martin with regard to the landed interest were very helpful, and on that point he might say that the land at Trafford Park, Manchester, was, in 1897-8, assessed for rates £1,985 2*s.* It was not yet entirely built over, but the assessment for rates, for 1903-4, gave a net figure of £71,293 4*s.* 7*d.* That was a case where by judicious arrangements the owners of the land had succeeded in netting very considerable sums for themselves, and, at the same time, providing sites for manufactories which were in many respects, as regarded transit at any rate, without rivals.

He believed the system in Canada, although it offered very great inducements to manufacturers, would hardly be passed by the Local Government Board. He thought if a local council tried to relieve them of rates for ten years the Local Government Board would certainly have

something to say about it. Port Sunlight and Bournville had been referred to by Mr. Chatfeild Clarke. At Port Sunlight the financial return was not taken into consideration but at Bournville the buildings erected yielded 4 per cent. If a manufacturer received an increased return in more efficient labour by housing his people well, and at the same time, on the Cadbury system, secured 4 per cent. on his capital, surely he was doing a very good thing for himself.

The Meeting then adjourned.

PAPER 293.
No. 462.

GARDEN CITIES AS A METHOD OF INDUSTRIAL DISTRIBUTION.

BY RALPH NEVILLE, K.C.

Read at the Ordinary General Meeting of THE SURVEYORS' INSTITUTION *on Monday*, 25th *January*, 1904.

ALFRED BUCK (President) in the Chair.

In the absence of the author, owing to illness, the Paper was read by the Secretary.

I. PHYSICAL DEGENERATION

The undertaking, for a short account of which I ask your indulgence to-night is what is known, and I am glad to think by this time tolerably widely known, as the "Garden City" scheme. We owe the name to Mr. Ebenezer Howard, to whom also we are indebted for the idea to which we are endeavouring to give form and substance. When I say we, I mean the Garden City Association and its offspring, the First Garden City, Limited. I have sometimes doubted whether the name "Garden City" is happily chosen. To some ears it may sound too fanciful, or at all events, too horticultural a designation for a serious scheme dealing with a matter of grave and pressing national concern. It was, however, not easy to hit upon a name which would aptly describe the

scheme, and, for better or worse, the designation has long since been fixed beyond recall. Should the name at the outset produce an impression of the unreal and idealistic, I feel some confidence that when I have, with your kind permission, laid before you the objects of the directors of the First Garden City, Limited, to whatever criticism you may think their project open, you will at least acquit them of the charge of overstrained idealism. The scheme simply aims at stimulating and organising the movement towards the decentralisation of manufacturing industry which is observable in various quarters. Our endeavour is to facilitate the distribution of the industrial population upon the land, and our action is prompted by the belief that physical degeneration among the population of our great towns must be recognised as an existing and pressing evil.

I trust I shall not prove tedious if I mention the circumstances under which, nearly 30 years ago, my own attention was called to the subject.

Fond of athletics as a youngster, I had a keen eye for physical characteristics. In 1876 I commenced to practice professionally in Liverpool. Living on the Cheshire side of the Mersey, I daily crossed in the ferry boat to my chambers. The first summer I was there I was startled to find the boat from time to time filled with a crowd of people unlike any I had come in contact with before. Stunted, pale-faced, thin-limbed, with teeth decayed in the case of young and old alike, they presented the most melancholy spectacle to my eyes. Finding them on the route from Cheshire to Lancashire, I was at a loss to guess their origin, but on inquiry I was told that they were excursionists, or "trippers" as they call them there, from centres of the cotton industry in Lancashire. The fact that they started from their

homes at 1 o'clock in the morning, had exhausted the sights of Birkenhead by 9 o'clock the same day, and, when I saw them, were returning to Liverpool to spend the rest of the day in a round of ceaseless activity, and would rejoin the train at midnight to appear at the mills at half past 6 o'clock next morning, is cheering evidence that, in spite of physical deterioration, they had not yet lost the splendid energy of the Lancashire race. A few years later, professional experience in cases respecting rights of way and water afforded me an opportunity of comparing the Lancashire men of the agricultural districts with my friends of the boat. A finer race than the former I have never seen; tall, big-boned, long-limbed, and muscular, I doubt if Europe could produce their match. It seemed incredible that, in a few generations, unhealthy conditions of life could have reduced such a race to the condition of the manufacturing population. Now, I do not propose to detain you with an argument upon the existence of physical degeneration. I think it is to-day so generally recognised that I may fairly proceed upon the assumption that it exists. The recognition has been long delayed, but when one reflects this was inevitable. It is not an easy subject for public men to deal with. It requires exceptional courage to stand up and tell one's neighbours that they are degenerates, and the difficulty is not lessened if one's neighbours happen also to be either actual or potential constituents. But although the fact is generally recognised, there is not yet the unanimity I should like to see with regard to the causes, nor with regard to the methods by which such causes can be modified and controlled.

By a consensus of opinion, I think, the progress of physical degeneration is identified with the increase of the population of the towns, and the decrease of the

population of the country; but as to the determining causes which make town life unhealthy and country life healthy there seems to be, strangely enough, a divergence of opinion. Dr. Farquharson attributes it to the pressure of the board school curriculum upon underfed children. The Bishop of Ripon appears to credit the story that one of the principal causes is the eating of too many sweets by children, and the "dangerous cheapness" of sugar. Now with all deference to these opinions, I would point out that children are underfed in the country as well as in the town; and that board school teaching presses equally on both. I cannot help thinking too that the danger of cheap sugar to underfed children is exaggerated, particularly when one remembers that the children's means of purchase are small. Children of the well-to-do, who are generally rather over than underfed, consume, I should suppose, a very much greater quantity of sweets than the children of the slums; and although I do not think it a wholesome habit for children with three or four good meals a day, I have not observed any marked physical deterioration to result from it.

I should be glad to be able to think the Bishop of Ripon's view the right one, for steps have recently been taken which will go some way to remove the temptation of cheap sugar from the children of the poor. This, however, could in any case be but a partial remedy, and the suggested cause hardly seems to account for the difference between country and town, since sweets are common to both; yet I think it would hardly be contended that country children exhibit the same symptoms of degeneration as the children of the slums. In a village within easy reach of London, the name of which for obvious reasons I withhold, the children are well grown and

healthy looking. They come of a very indifferent stock. Knowing what I do of the money earned by their parents, the rents they pay, and the proportion of their wages which goes in drink and betting, I feel certain that, in many cases, the children cannot but be underfed. They are subject to the school board; yet compare them with London children of the same class, and the contrast is startling. What then is it that these have and the others have not? Surely there can be but one answer—fresh air outside their cottages. I say outside advisedly, for in some cases over-crowding in country cottages is little, if any, less than in London tenements. Medical opinion is tardily beginning to lay hold of this vital fact, that no matter how satisfactory the conditions of life may be in other respects, it is absolutely impossible to rear and maintain a healthy race without an abundance of fresh air. This is the foundation upon which alone physical well-being can be laid. The reluctance with which this simple idea is accepted, although it can be tested and has been proved in a hundred different ways; the extent to which the human mind will strive to discover recondite causes in a condition of things for which a sufficiently obvious cause exists, would be astonishing did one fail to recognise the persistence of error, and the staying powers of ignorance.

It is not pretended that when you have provided a sufficiency of fresh air you have done all that is necessary. Some day we may recognise the truth, which the Germans, in search of an object quite different, stumbled upon, I mean the effect upon national physique of sound physical training at the critical period of the lives of their young men. I do not despair of seeing a similar opportunity extended to our own boys. Should the opposition of those who deem the training of a man to

defend his country contrary to good morals endure, a compromise might be arrived at, by limiting the training to some obsolete method of warfare—say the use of bows and arrows. Then, too, I look forward to the time when the education of young children will be seen to consist in teaching them to use their hands and their heads, and lesson books shall become few and far between. But, as I have already said, these things, however desireable, are superstructure; they must rest upon a firm foundation, and fresh air is the chief material for that foundation.

II. The Problem to be Solved.

Now, if physical degeneration exists and we are agreed that steps should be taken to arrest it, what is precisely the problem we have to solve? I assumed at the outset a consensus of opinion identifying the growth of the towns, and the depopulation of the country, with the advance of deterioration. I have endeavoured, I hope successfully, to lead to the conclusion that the determining cause (or at all events that which transcends all others) was the insufficiency of fresh air in overcrowded towns. If this be conceded, it follows that either the towns must be so modified as to provide a sufficiency of air for the working class inhabiting them, or some means must be found of withdrawing part of the population to the country.

At this point I find myself in a position of some embarrassment. The natural course of my argument would lead me to consider the practicability of sufficiently modifying the conditions of life in existing towns on the one hand, and of redistributing the population on the other; and to weigh the comparative advantages to

be derived from either course. I find, however, that a Paper upon industrial distribution has been recently read before this Institution, which deals with the precise matter in hand. Now it would be intolerable that I should weary you with needless repetition. I am glad to say that I entirely concur with the part of Mr. Scoble's Paper which deals with this subject. Indeed it could not be otherwise, for Mr. Scoble clearly and forcibly states the arguments which the members of the Garden City Association have for some years past endeavoured to press upon the attention of the public.

It cannot but be a source of gratification to us to find that, by an independent train of thought, Mr. Scoble has arrived at the conclusions which we have so long sought to enforce. I cannot, therefore, I think, do better than adopt his arguments in this respect *en bloc*, merely emphasising one or two points by way of reminder. This course will have the advantage of very greatly reducing the demand I shall have to make upon your time and attention.

And first, with regard to the practicability of converting our great towns into places suitable for the rearing and maintenance of a healthy race. I should like to summarise the more important difficulties in the way. First, the cost is almost prohibitive; then if that be overcome, the necessity arises of either heaping the working class in tenement buildings or scattering them far from their work. Mr. Scoble has done well, if I may say so, in calling attention to the mischief flowing from the adoption of the tenement system. A very large proportion of the tenements must inevitably be deficient in light and air, and in many of them artificial light is in constant use; but their chief defect lies in the

tendency to keep the children within four walls, and out of the open air. The tenements are very inaccessible from the street, or perhaps it would be better to say the street is very inaccessible from the tenements. Now we speak, partly sympathetically, and partly reproachfully, of "gutter children"; but it is a mistake to suppose that their connection with the gutter is the chief ground for commiserating their lot. On the contrary, when seen in the gutter, these children, sad as it is to say so, are enjoying the principal opportunity they possess for securing healthy development. The board school playgrounds should perhaps be mentioned, but I doubt if hygienically they are any better. Conventional sympathy is naturally excited by the obvious, but in truth rags and dirty faces are the very least of the penalties imposed upon the children of the very poor. The real grievance of their lot they share with other town dwellers financially much better off; that is to say, deprivation of the opportunity for developing into healthy, strong, and happy men and women.

With regard to the other alternative, distribution in suburbs. Inasmuch as it is difficult to make factory work healthy, particularly in towns, what should be aimed at is, by securing healthy conditions of life during leisure hours, to counteract any deteriorating effects which may prove inseparable from work in the factory and workshop. Long journeys to and from work are not only exhausting, but are almost invariably performed under conditions quite as unfavourable to health as those which obtain in the ordinary workshop. What a man wants to enable him to make the most of his life is to be close to his work and close to his opportunities for play or relaxation. Every possible inducement should be held out to the working man to spend the hours

which are not devoted to indoor labour in some pursuit which takes him into the open air.

Another point to be borne in mind is this. Large aggregations of inhabited dwellings undoubtedly affect the atmosphere in a manner prejudicial to health. If you take a man from the centre of London, and put him upon the Surrey Hills or Sussex Downs, he is immediately sensible of an alteration in his physical condition. But the more you clear the centre of your great towns, and distribute the population in suburbs, the further and further off you drive the country, and the wider and wider becomes the thickly inhabited area. It therefore by no means necessarily follows that by spreading it out over a wider area you improve the hygienic conditions of the town as a whole.

So far, therefore, Mr. Scoble and the promoters of the Garden City project travel along the same lines, and arrive at the same conclusion, namely that the distribution of industries in the country is the true solution of the problem of overcrowding and physical deterioration. When we come, however, to the question of what, if anything, should be done for the purpose of promoting such distribution we part company.

The Garden City project was the outcome of a book of which Mr. Ebenezer Howard was the author, entitled *Garden Cities of To-morrow.* The interest excited by this book led to the formation of a Garden City Association for the purpose of advocating the reduction of Mr. Howard's idea to a practical shape. Under the auspices of this Association, the Garden City Pioneer Company was registered with a capital of £20,000, which was fully subscribed, for the purpose of selecting a site for the experiment, and promoting a company to acquire it. The site, after considerable labour and

difficulty, was selected, and the First Garden City, Limited, registered with a capital of £300,000. The site selected was purchased by the latter Company, a little under two-thirds of the purchase money being left upon mortgage, and the Company is now engaged under expert advice in planning out and preparing the development of the estate, the intention being to make a practical start before making the necessary appeal to the public for funds. The total amount of money found up to the present time, some £85,000, has been provided by the members of the Association and their immediate friends.

Now in view of certain remarks which I shall have to make presently upon Mr. Scoble's Paper, it is necessary to state clearly the extent to which the Company are indebted to Mr. Howard and how far their undertaking is affected by the views stated in his book.

To Mr. Howard belongs the merit of directing public attention to the desirability and possibility of making provision for the increase and overflow of the industrial population by: (1) Acquiring sites for industrial settlements at agricultural prices; (2) Scientific planning of the sites by experts; (3) Concerted migration of population; (4) Limiting the area and population of these settlements; (5) Maintaining a belt of agricultural land around them; (6) Applying the increment in the value of the land for the benefit of the population.

Here begins and ends the connection between Mr. Howard's book and the undertaking of the First Garden City, Limited. Mr. Howard provided his central idea with an attractive setting; with this the Company has no concern. Some of this may prove capable of realisation, some of it is very possibly fanciful, but the whole of it was distinctly stated by him to be suggestive

merely, and in his book he expressly says the final and actual scheme will be the outcome of many minds. The purpose of the Company is to proceed with the development of the estate in accordance with the best expert advice they can obtain, having regard only to the objects enumerated above. This is the attitude of the directors to-day. This has been the attitude of those engaged in the movement ever since I have been connected with it, and to the best of my belief, it was the same from the very inception of the movement.

Now, some of the advantages which may be expected to accrue from industrial settlements, so organised, are:—

1. Conditions of life for the artisan and townsman, consistent with sound health for himself, his wife, and his children.

2. Cheapness, efficiency and sightliness resulting from the scientific laying out of the town as a whole from the outset. In connection with this head may be grouped:

   (*a*) The supply of light, water, power, and heat;

   (*b*) Facility of transit and communication;

   (*c*) Disposal of sewage.

3. The reduction of rates, by the application of the increment in the value of the lands, so far as it can be secured, for the benefit of the inhabitants.

4. Bringing a market to the farmers of the agricultural land, and incidentally

   (*a*) Increasing the amount of labour employed upon the land by the extension of small culture.

(*b*) Affording the agricultural labourer the advantages of town life.

If this scheme of industrial distribution were progressively acted upon, it seems to me that the location of the population upon the land would have been started on the right lines. It would increase the value of land over a wide area, would maintain a greater number (probably double the number) of agricultural labourers, and would afford conditions of healthy existence to the industrial workmen. We speak of the over-population of England. The land would bear in health and comfort a far larger population than it holds to-day if the population were distributed in this fashion. The progressive depopulation of the country has long been bewailed. Numerous expedients have been suggested to check it, varying from the provision of travelling circuses to the imposition of protective duties; but in my judgment any attempt to force back the people from industry to agriculture by artificial means is foredoomed to failure. The tide of civilisation flows in the same direction in all advanced countries.

I now turn with some reluctance to a part of Mr. Scoble's Paper with which I cannot agree, and which I fear it is impossible for me to leave unnoticed. The objects of the Company being as stated above, I find it difficult to understand Mr. Scoble's hostility to the enterprise. Whether right or wrong, their undertaking is an honest attempt to promote the decentralisation of industry which Mr. Scoble advocates. If that attempt is to be discredited, it must be by showing the inapplicability of the methods they are seeking to apply, not by criticising proposals with which they have nothing whatever to do; yet this is the course which Mr. Scoble has thought fit to adopt.

On page 33 he informs us that a company has been formed and a site secured to carry into execution the ideas presented in Mr. Ebenezer Howard's "much-talked-of book." Then follow some seven or eight pages of criticism of ideas presented in the book. One would naturally suppose that these were the ideas which the Company had been formed to carry into execution upon the site secured. Nothing of the kind! As a matter of fact, they are quite irrelevant to the Company's scheme. Of this Mr. Scoble himself appears to be aware, for on page 34 he says that a description of the proposed city is given, and adds "although it is intended to be merely "suggestive it will, I think, be useful to look at one or two "of the details enumerated." Hardly, I venture to submit, unless there was some reason to suppose that it was intended to follow one or more of these details in practice. There was, I think, no reason to suppose anything of the kind and the contrary is the fact. On page 38 Mr. Scoble seems to be momentarily conscious of the nebulous character of the matter he has been attacking, for he very truly says, "It may be urged, however, that "the Garden City is merely the theoretical presentment "of an idea, and that, in carrying it out in practice, "substantial modifications must be expected." He immediately, however, relapses into his earlier method, and proceeds to indulge in three pages of criticism of the "details of a novel system of water supply," which he informs us is contained in an appendix to the first edition of Mr. Howard's book, but "now deleted." When, therefore, after beating the air at such length, Mr. Scoble tells us that the criticism of Garden City has occupied so much time that he will not bring under review any other book, we receive the announcement with regret rather than astonishment.

I hope I shall be pardoned if I treat the criticisms on page 37 as not demanding serious attention. They seem to be based on the omission of business detail from speeches delivered after luncheon to 800 people who had been invited to view the site. I am the more surprised at the gratuitous attack upon the competence and common sense of the management, which Mr. Scoble in this part of his Paper permits himself to make, since two of the directors are members of the firms put forward by Mr. Scoble himself as the pioneers and examplars in industrial distribution. I can assure Mr. Scoble that the directors are fully alive to the difficulties of the task they have undertaken, and I will venture to make the further assertion that they understand them a good deal better than some of their critics. They believe, however, that these difficulties will in the end be surmounted, but of this time must be the judge.

Sharing as I do to the fullest extent Mr. Scoble's desire to see a rapid extension of industrial distribution, I believe in practical efforts to that end. On page 67 he says, "I "would impress upon everyone, upon the manufacturer "more particularly, the enormous advantages to be derived "from the housing of the workers in the best practicable manner." I quite concur in this desire, but if we are not to let slip the present opportunity for inaugurating a satisfactory method of industrial distributing, we must do a good deal more than indulge in pious wishes or mere exhortation. In exhortation, experience has taught me to place little reliance. Example no doubt is of value, but, in the present case, those who have set the brightest example concur in thinking that the time has come for an endeavour to put the movement upon a wider basis. I agree in the view that certain trades will be more and more drawn into the country, but I cannot think the

sporadic settlement of manufacturers is the true solution of the industrial question. There is no business in which co-operation offers so fair a field as it does in land settlement and the formation of towns. In this case there arises an advantage from the collective conduct of business, apart from that due to the conduct of the several businesses themselves. The mere resort of people to the same place, whether it be for the purpose of residence or of business; whether it be by individual selection or collective design, adds a value to the land beyond its intrinsic worth. This increment has hitherto been uniformly presented to the landowner. By foresight and concerted action, it can be secured in great part, if not altogether, for the benefit of the people who create it. Moreover, in existing towns the inhabitants are in several ways exploited by private monopolists. Assuming management to be efficient in a town designed and managed in the interests of manufacture, where the return on capital is limited, as in the present case to 5 per cent., there must be an opportunity for a reduction of cost, which will place the manufacturer in a favourable position, not only in comparison with his rivals in great towns, but with those who have selected isolated sites for themselves in the country or near small towns. With regard to labour, too, and accommodation for labour, the advantages of co-operation and concerted action are distinct. The manufacturers to whom expenditure outside their business is immaterial, are comparatively few. Certainly many of those who would be glad to move into the country are not prepared to build model villages, or even themselves to provide accommodation for their work people. Now it is not easy to get builders to build cottages, the occupation of which

depends exclusively upon the prosperity of a particular factory; whereas, where even a few manufacturers start together with the probability of an increase in their numbers, I do not think any very great difficulty will be found in procuring the erection of cottages, particularly where the landowner undertakes the capital expenditure with regard to sewering and road making. Again, there is, I believe, always a difficulty about labour where local industries provide employment for men only. In the creation of Barrow-in-Furness it was found necessary, I have been told, to provide supplemental industries for the employment of women. On the whole it is to be observed that the history of industry under the factory system indicates that towns are *prima facie* advantageous. It is only since the overcrowding of towns that the disadvantages have begun to predominate. We believe that we can offer land to the manufacturer upon terms which, having regard to the advantages offered, will be better than any which he can obtain from a private owner.

It seems to me that we have come once more to a parting of the ways, and that it is incumbent upon us to anticipate future progress with energy and foresight. The history of industrial development, in its effect upon the distribution of the population upon the land, does not teach the desirability, in the case of a new departure, of leaving matters to self interest and individual effort alone, without foresight, co-operation, or organisation. If the development of the movement of decentralisation is left to chance, as the prime movement of centralisation under the factory system was left, we may anticipate with some confidence the growth of evils not less serious than those which the short-sighted indifference of our predecessors compels us to cope with to-day. To the

advantage of individualist effort I am quite alive, but the idea that this excludes the necessity for reasonable co-operation and organisation, I venture to call individualism gone mad.

Now a few words with regard to the site itself and its development. It is, as you know, an estate of 3,800 acres, near Hitchin on the Great Eastern Railway. With regard to the area of the site, experience must show what is the right proportion which agricultural should bear to town land. In this regard it must be remembered that if the completed idea of a group of towns built on the like principle were carried into effect, the width of the agricultural belt surrounding each would be doubled. Personally, I should have preferred 6,000 acres as originally suggested; but there is an old proverb that you must cut your coat according to your cloth. If Mr. Scoble, instead of exulting over the reduction, had put us in the way of getting £500,000, and the loan of the Lands Clauses Consolidation Act to start with, he would have very substantially diminished some of the difficulties of which he supposes the directors to be oblivious. The difficulty of obtaining a suitable site under the conditions affecting the Company was great, and I think the shareholders are to be congratulated upon their purchase. It is of course impossible that one site should afford equal facilities for all kinds of manufactures, but we are advised that for general purposes the site is an admirable one. The preliminary work has been proved by our experience to be much greater than one would have anticipated, but we have now every reason to believe that in a very short time we shall be in a position to make a substantial start in the business of development. In the meantime, questions which have long been before us in the abstract, press for settlement,

and I can assure my hearers that we shall welcome any suggestions that may throw light upon their solution.

In the first place comes the question of the density of the population. It seems to me that this may very fairly exceed what is to be found in a model village. The retention of two-thirds to three-quarters of the surrounding land unbuilt upon would justify the erection of a fairly compact town, and compactness has of course its advantages, although everything must give way to sound hygienic conditions. There may be some temptation to create a straggling village, rather than a town; and by aiming to provide as much space round each dwelling as in a model village, and as many open spaces as in a model town, in addition to the open belt surrounding the town, we may provide several times over for the same thing. I think, however, that the architects and others engaged upon the plans are fully alive to this danger, and I doubt not we shall escape the Scylla of extravagant extension without falling into the Charybdis of overcrowding. This, however, is a point with regard to which discussion will be useful. Then comes the next question of sewage, light, power, and heat. With regard to the first I am compelled, from what information I can acquire, reluctantly to agree with Mr. Scoble that we must confine ourselves to its disposal cheaply and innocuously. I cannot think, however, that science has said its last word on this question. That human beings should be the only creatures to take everything from the land and return nothing to it seems unnatural, and were this the only question with which we had to deal, I should be disposed to advocate a bolder policy; but it is by no means the only question, and I think therefore, that while we must endeavour to utilise the most recent scientific methods, the scheme being experi-

mental itself will not bear the introduction of experiments within it, lest the burden of the untried should prove greater than the Company can bear. With regard to the supply of light, power, and heat, I have of course no technical knowledge, and I should not be justified in occupying time by putting forward any views of my own. They are, however, matters of extreme importance, and until the methods to be adopted are finally decided, discussion and advice will be of value The directors cannot indeed undertake to follow all the advice given, for views on these subjects are very conflicting but they will undertake, I am sure, to give it their best consideration, and to honestly endeavour to make a wise selection.

The construction of streets and side walks, building regulations, and the appropriate use of trees for ornamentation, are also matters concerning which information will be valuable. With regard to land tenure, it is desired to depart as little as may be from conventional terms, the directors' duty, to their shareholders and the inhabitants alike, being to dispose of the building sites to the best advantage.

There is a point, however, in connection with the Garden City, which should not be overlooked, and it is this: All that the Company can, in the first instance, attempt is to provide for the laying out and creation of a town in accordance with the best conditions known to modern science; but there is ample scope for subsidiary effort to ameliorate the conditions of civic life. For such effort an exceptional opportunity is presented. From the very nature of the endeavour, a very much larger proportion of the inhabitants will consist of persons sincerely interested in municipal progress, than can be found in other societies.

I am fully aware that this is not without its dangerous side, but I trust I shall not be thought too sanguine when I say that the constitution of the board affords a substantial guarantee against the undue influence of fads and fancies. The promoters of all reasonable schemes of social welfare, be they for model dwellings, workmen's clubs, co-operative enterprises, or what not, may be sure of sympathy and assistance from the Company. The enthusiasm worked by a forward movement like the present is a great motive power, the effect of which cannot, of course, be measured beforehand, but I shall be much disappointed if the Garden City movement does not exert a great moral force, and lead to considerable social improvement above and beyond hygienic questions, important and essential though they be.

In conclusion, I must crave your indulgence for the deficiencies of this Paper. It was written of necessity under unfavourable circumstances and without the means of reference. I must apologise particularly for a want of logical sequence, of which I am conscious; but here I may crave in mitigation that this was, under the circumstances, to some extent inevitable. I could hardly do otherwise than make my Paper partly supplemental to, and partly a criticism upon, the other Paper so recently read before you on substantially the same subject.

Mr. Howard Martin (Fellow) said he had very great pleasure in moving a hearty vote of thanks to Mr. Neville for his interesting and able Paper, and in expressing sincere regret that illness had prevented the author from being present to read it himself. The Institution was under a special obligation to him for having added one more to a very long catalogue of able and interesting Papers which had been contributed to

the *Transactions* by Members of the Bar, and the obligation was the greater because he must have prepared the Paper, not only in the midst of heavy professional engagements, but when suffering from the weakness following severe illness.

He did not think there could be two opinions about the extreme importance of the subject of the Paper. Looking at the matter from a Londoner's point of view, it was extremely important that the increasing pressure of immigration into London should be diminished by inducing manufacturers to carry on their works in the country, and so arresting the growth of town population; because the constant increase of population so augmented the price of land that the difficulty of providing properly for the housing of the working classes, and for premises for carrying on trades in those crowded areas became so great that good sanitary conditions became almost impossible; and rents rose so much that the price of what was produced in such situations must be very materially raised, or something must be done to check the constantly-increasing site value.

He supposed the ideal state of things would be (if the gloomy forebodings of commercial decline, and England's becoming a second Holland did not fulfil themselves) that London should be fully occupied with distributing and organising and with the work and trade necessary to be done on the spot to supply its own inhabitants, and that actual manufacturing should be carried on in the country. That would be a great gain, he thought, not only to the towns, as a relief to the pressure of continually increasing population; but a gain also to the inhabitants of country centres, not only because those engaged in manufactures would work under more healthy conditions, but because, he thought, that change

could not fail to have the effect of increasing the number of labourers who would be willing to again employ themselves on the land. It was said, and he believed truly said, that one great cause of the abandonment of the land and the flocking into towns was that the conditions of country life were so intolerably dull that when once labourers and their families had experienced the stir and bustle of life in a large town, they would sooner put up with the insanitary conditions of town life than go back to the country. He did not personally share that desire, for he would rather be dull in the country than amused in town. But it was quite possible that if these rural manufacturing centres were established, labourers would live there under pleasant and healthy conditions and work on land in the immediate neighbourhood. This would do more than arrest the deterioration of which Mr. Neville had spoken, for it would set the process going in the opposite direction, not only by transferring workshops and factories to the country, but by getting more people to work out of doors. It was work in the open air that made a hardy and vigorous race.

He thought all were agreed (and Mr. Neville's Paper seemed absolutely convincing on the point) as to the desirability of the scheme now advocated, and if any doubts arose they could only, he thought, be as to the mode in which that scheme was to be carried out.

He ventured to think there would be little difficulty with regard to the supply of water and light, and the disposal of sewage: it seemed likely that those problems would be solved far more easily in dealing with them *de novo*, and starting with a clean slate, as in this case, than in the cases of towns where all kinds of conflicting interests had to be reconciled before a reasonable and efficient scheme could be carried out. The difficulty that

struck him was that the process of transferring the capital and labour engaged in manufacture to a fresh situation must be a very slow one. People could not pick up their factories like a camp-stool, and walk with them into the next parish. It seemed to him that the great difficulty to contend with would be either rapidly to induce capitalists to move their works, or for the Company to keep their heads above water, waiting, with large capital invested in the purchase and laying out of land, while the ordinarily slow process of moving was being carried out. The author made no attempt to deal with that side of the question. He satisfied himself with convincing—and, as he ventured to think very thoroughly and entirely convincing—his hearers of the desirability of carrying out the scheme if it were possible, and he (the speaker) wanted to hear in the course of the discussion, from those who had thoroughly considered the financial and practical aspects of the question, how they proposed to deal with the difficulties he had indicated.

He had great pleasure, and he was sure he was expressing the views of all present when he did so, in moving a cordial vote of thanks to Mr. Neville for the Paper which he had been good enough to contribute to the *Transactions.*

Mr. WHEELER, K.C. (Associate), said it gave him the greatest pleasure to second the vote of thanks to his learned friend Mr. Neville.

The first section of the Paper was headed "Physical "Degeneration," and it was to that phase of the question that he desired to call attention. As had been said by the Prime Minister, by Lord Rosebery, and by Mr. Asquith, that was the pressing question of the hour, beyond comparison greater in importance than any so-

called fiscal question, and it had struck him, as well as touched him, to find from his learned friend's Paper that his attention had been called to the matter, as had his own years ago, by seeing the condition of the excursionists from Lancashire. He (Mr. Wheeler) had met with them on the shore at New Brighton, and the sight of the physique of those men and women had filled him with terror. He was speaking of some years ago when, only a short time before, he had been acting as revising barrister for the northern districts of Westmoreland, and the hills of Lancashire and Cumberland, where he had seen a population and peasantry of whom any country might well be proud. The difference between them and those he had mentioned at New Brighton was simply amazing, and convinced him of the necessity for that movement in which for years he had taken a humble part.

A few paragraphs further on in the Paper he found the author saying: "It seemed incredible that in a few "generations, unhealthy conditions of life could have "reduced such a race to the condition of the manufac-"turing population."

In the report of the Inspector-General of Recruiting, just published, it was stated that, in Lancashire, the number of men rejected for military service was, not 33 per cent., which was the figure, more or less, for the whole country, but had during the last year amounted to 49 per cent., *i.e.* in the class from which our soldiers were drawn half the population of the greatest manufacturing district in England were wholly useless for the purpose. If that were the fact, he ventured to say that no amount of discussion which could throw light on its causes and possible remedies was time wasted, but that everyone, whether as patriot, citizen, or professional man, should endeavour to solve a problem so fundamentally impor-

tant to their country's welfare and even to its continued existence.

Dealing with the next point, he thought the author of the Paper spoke from insufficient data, when he said "By a consensus of opinion, I think, the progress "of physical degeneration is identified with the increase "of the population of the towns, and the decrease of the "population of the country; but as to the determining "causes which make town life unhealthy and country "life healthy, there seems to be, strangely enough, a diver-"gence of opinion." He feared he could not agree with his learned friend. Town life, as such, was not unhealthy. Place for place, area for area, town life compared favourably with country life. The population of London over the whole area was actually sparse. It was 15 to the acre, which was certainly not crowded. The death-rate of London over the whole area was 12 or 13 per thousand. He ventured to say that that bore comparison with any village life in England. His learned friend had, perhaps, not had occasion to go so thoroughly into these matters as he (Mr. Wheeler) had been obliged to do. The death-rate, small as it was as a whole, varied wonderfully in different parts of London. In his own district it was under ten, but he could point to a district within two miles where it was over 50. To what was that difference, or to what was this physical degeneracy, owing? It was no use begging the question. It was due in much to the *habits* of the people. The housing question was but one phase of the matter. Look at those wretched boys smoking cigarettes! Think of the lads and women herding together like swine! Picture the over-crowded rooms with all their inevitable horrors! He spoke from sad experience, for it had been his duty more than once to personally investigate those matters. Therefore it

must be remembered when dealing with this question of re-housing that, while it was a very important side of the subject, it was after all but one side, and there were other things which must be considered, and considered very closely.

It was not merely a question of habitation, however foul, or of the conditions, however insanitary. One must, besides that, consider the unwholesome habits of the people, which on such an occasion as the present would hardly bear naming.

A little further on Mr. Neville said: "Mr. Scoble has "done well, if I may say so, in calling attention to the "mischief flowing from the adoption of the tenement "system." There again he could not entirely agree with him. The tenement system, as a whole, from the standpoint of health, had been admirable. He had acted for and against those companies, and, speaking broadly and generally, the death-rate in those various tenements was a moderate one. Compared with streets immediately contiguous to those tenements, it was distinctly good. He had tested it east, west, north, and south, and had come to the conclusion that, while there were very considerable drawbacks to such tenements, yet, nevertheless, as far as they were concerned, the death-rate, on the whole, indicated a condition of things reasonably healthy.

Then his learned friend went on to say: "A very "large proportion of the tenements must inevitably be "deficient in light and air." That was true. He would quote a remarkable experience. Proceedings were taken by one local authority—he would not mention the name—which thought that a building put up at a cost of £50,000 should be immediately taken down, on the ground that the passages were dark and the closets

were not properly ventilated, and so on, and it took a year to get a Court of Appeal to upset the decision of the magistrate who decided that the tenement building was, in fact, unhealthy. However, he succeeded in showing that the building was erected after the designs of skilled architects, who utilised the site to the best advantage, and the Court came to the conclusion to which he invited it, and held that the building was not, in fact, unwholesome.

Just one word more—there was so much in the Paper that he must ask forgiveness for occupying more than his fair share of the time of the meeting—a little later on his friend said: "Long journeys to and from "work are not only exhausting, but are almost in-"variably performed under conditions quite as unfavour-"able to health as those which obtain in the ordinary "workshop." With that he entirely agreed. That matter, as he had said on a previous occasion, was brought most forcibly to his attention by the way in which workmen were hustled from Hammersmith, on the one side, to Woodford on the other, using electric power, tramcars, and railways: such journeys could not conduce to the physical welfare of the working classes.

Another important point touched on in the Paper. When towns like a garden city were founded, as was the fact with towns like the proposed garden city, the men were there to work with factories near at hand, so that the work and the workmen were close together. "Again," as the author said, "there is always "a difficulty about labour where local industries provide "employment for men only." (This was, he thought, most important)—"In the creation of Barrow-in-Furness "it was found necessary, I have been told, to provide "supplemental industries for the employment of women."

That was the truth. When the London and North Western Railway built their works at Wolverton and got their artisans and best workers there, they found in a short time that while there was work for the men, there was none for the women and the children, and very soon many of those men, provided though they were with admirable cottages, asked permission to go back to the immediate vicinity of the neighbouring towns to get work for their children. The same thing took place at Crewe, and the consequence showed that great as was the importance of proper housing and the bringing of the workmen and his work together, it was still more desirable that some supplemental industries should be established to meet the case of the women and children.

With reference to the question of "sewage, light, "power, and heat," it would perhaps be presumption for him, a lawyer, to say much, but he should like to express an opinion, that, with regard to the question of the sewage, whether it was to be water-carried or not—he thought not. It was very well to suggest dealing with sewage on some given system, and with light and heat on another; but so far as sewage at least was concerned, there were such bodies as local authorities, and it was just possible that those local authorities might insist on conditions which would add enormously to the cost of carrying out the work. He knew of a case in Sussex, where an owner desired to build several cottages for the workmen employed on his estate. Excellent plans were prepared by an eminent architect in London, but the local authority would have none of them, and insisted on his carrying out sanitary arrangements and drainage in such a manner as absolutely prohibited his spending anything like what he desired on the cottages. Those things must be considered in evolving any scheme that was expected to yield a re-

munerative return. However, he (Mr. Wheeler) was not there merely to criticise. He approved, heart and soul, of the movement, even though it was of a somewhat ideal character.

Mr. EBENEZER HOWARD (Visitor) said it might, he thought, be convenient if he were to endeavour to lay before the meeting a few details in connection with the project under discussion but, before doing so, he would like to refer as briefly as possible to what had been said by the previous speakers.

To gain a true estimate of the health of the people, it was necessary to consider, not merely the death-rate; for this, taken alone, might be very misleading. There might well be a low death-rate, accompanied by a very low standard of life. Was there not a great deal in what had been called the survival of the unfit?

There was one other point to which he would like to call attention. In comparing town life with country life it should be remembered that country life itself was often not nearly so healthy as it might be, because, paradoxical as it might seem, there were not enough people living in a particular district to make it feasible or possible to provide proper sanitary conditions. He had in mind a healthy district in Wiltshire, or rather a district in Wiltshire which undoubtedly ought to be very healthy, where the people were unable to obtain a proper water supply although nature had provided a vast amount of water under the land. The sanitary conditions were consequently very bad, and the general standard of health was very much lower than it would be under proper conditions.

Turning now to details of the Garden City Scheme, the project involved the acquistion of a large estate of 3,800 acres which had been purchased from a considerable

number of landowners at an average cost of a little less than £40 an acre, including the timber, of which there was a considerable amount towards the south-west as well as scattered about on other parts of the estate. It also included the entire village of Norton and parts of the villages of Radwell and Willian. These were picturesque villages with a fair number of very good cottages, particularly in Willian.

In addition to that there were on the estate not only farm-houses, but good residences, for instance, Radwell House, Guys, and Puncharden Hall.

As to railway accommodation, he would point out that the estate was situated between the towns of Hitchin and Baldock; was roughly speaking egg-shaped, was about three miles from north to south, and two miles from east to west, with its western boundary about a mile and a half from Hitchin, between which and London there was an excellent service of trains, covering the distance (about 32 miles) in 42 minutes; one train doing the journey in 39 minutes.

The elevation of the land was, at the highest point, 325 feet, and at the lowest point, 195 feet above Ordnance datum. As would be seen by reference to a map, the estate was intersected by a branch line of the Great Northern Railway from Hitchin to Cambridge, and the slope of the land was, generally speaking, towards the railway, *i.e.*, the northern half sloped towards the south, and the southern half mainly towards the north. The drainage of the estate was generally in a northerly direction.

The subsoil, as would be gathered from a knowledge of the district he had mentioned, was chalk, and the upper soil a sandy loam. There were on the estate some fine beds of sand and gravel, and in some parts, a con-

siderable amount of clay, part of which had been tested by making bricks and tiles, which seemed to be (he could not speak more positively at the moment) satisfactory.

There was a small trout stream, the River Ivel, taking its rise in Baldock, and flowing in a north-westerly direction along the boundary of the estate, for about one-third of a mile in a north-easterly direction, and intersecting it for about an equal distance.

There was another and very small stream which flowed into the Ivel from the south, towards the north-westerly part. This was fringed with trees and formed a very picturesque feature of the estate.

There were some good roads on the estate, particularly the road from Baldock to Hitchin and the Norton road, both running east and west. There was practically no road of access through the estate north and south.

He had mentioned the Great Northern Railway, on the main line of which was the town of Hitchin. In addition to this the district was served by the Midland Railway from Bedford to Hitchin, and the Great Eastern Railway had a terminus at Buntingford, eight miles to the east. As he had said, the Cambridge branch line of the Great Northern Railway intersected the estate, and, as could be judged from its distance from London, it might be said that the estate was within the area of a practicable motor car service. Curiously enough, a journal connected with that industry recently published a map of that part of England with a road projected from London to "Garden City." That was at present, he need hardly say, an imaginary road.

It was proposed to build the town, as nearly as might be, in the centre of the estate, and to reserve a certain quantity of the land round it, though he thought it

probable that some building operations, especially for good residences, would be carried out towards the south west of the estate, while it was intended to leave a considerable amount of land as park-land for all time. The country was undulating, and therefore did not lend itself (nor was it desirable that it should lend itself) to any precisely geometrical form of planning, whether square or circular; but there would be no difficulty (for the estate had been carefully contoured, showing every change of level in 5 feet) in providing roads in all necessary directions with easy gradients, and involving very little expense in cuttings or embankments.

Norton Common comprised about 65 acres of open land which it was intended to preserve as a feature of the estate, though it was not, strictly speaking, common land, as the Company had the freehold of it.

It was proposed that the cottages connected with the community should be furnished with good gardens—probably about ten to the acre, though no definite commitment could be made on that point at present. The consulting engineer of the Company (Mr. G. R. Strachan) advised before the site was purchased that a plentiful supply of water should be secured, and a bore hole had been made 16 inches in diameter and lined with steel. Mr. Strachan now wrote that the preliminary bore hole had yielded a large quantity of water, and that "while "looking for a supply for 2,000 people to start with, the "result had proved equal to at least three times as many." A reservoir was being arranged for at a good and sufficient elevation.

With regard to sewage disposal, no definite plan had been settled upon, but it was quite possible that a suggestion which Mr. Scoble had made in a paper in *Engineering* might be carried out, and that, at all

events at the outset, and to a small extent, some system of earth closets might be adopted.

There would, he thought, be no difficulty under the by-laws of the Hitchin Rural District Authority in making provision of that kind. At the same time the Company were advised that sites existed on the estate suitable for other methods of sewage disposal, and no great difficulty in that direction was anticipated. With regard to lighting, it had been definitely decided to introduce a system of gas supply, and a small gasworks would very soon be working on the estate. It was probable that the quality of the gas would be what was known as low grade—perhaps 10 or 11 candle power—necessitating the use of incandescent mantles. Under that system it was believed it would be possible to supply gas which was, in effect, of very good quality at a low cost and suitable for power in the early stages.

It was not necessary to refer to any particular system of lighting and providing power, as one of various methods might be adopted. As to this he could say no more than that they would be guided by the best possible advice on the matter.

Here he might deal with some of Mr. Scoble's criticisms. In his Paper, he suggested (pp. 36-37) something to the effect that in a scheme of this kind it was of the essence of success that it should be known from the very start how many people were to be provided for, and that provision as to power, &c., should be made adequate for that number. Why Mr. Scoble said that he was at a loss to conceive, and no reason was given. In building a town according to a definite plan, and with a definite aim in view, why must the scheme be subject to an obligation which no other town was expected to fulfil? It would be well,

of course, if one could know beforehand the precise rate at which the population would grow and its precise limits, so as to make precise and adequate provision, but why it should be necessary, before taking a single step, to provide an exact and final amount of lighting, power, and heat, he could not understand, nor had Mr. Scoble given any reason for holding such an opinion.

It might be interesting to state something as to what the railway company proposed to do for them. Mr Oliver Bury, the manager of the Great Northern Railway, who was interesting himself in the matter, had, fortunately for them, he thought, recently returned from South America and was therefore keenly alive to the possibility, and in some cases the necessity, of building towns in a rapid manner. The railway company had already arranged for a temporary railway station: it might not be at the point where the permanent station would be, but near it, and the Company, he was convinced, would do all they could for the Garden City in the matter of sidings, rates, &c.

The directors had recently decided on the most suitable sites for factories, and in consequence of that decision they would now be able to make more definite progress with regard to the manufactories than they could do while such an important matter was in abeyance. The site would be on the south side of the railway, towards the east rather than the west of the estate. The factories being in that position, the development of the estate would naturally circle, as it were, round that point, but probably developments would take place first mainly on the southern side of the estate. Some roads would have to be made to that point from the south, and these would be shortly projected.

But it was almost, if not quite, of the essence of the

scheme—he certainly considered it quite of the essence of the scheme—to attract manufacturers to the estate, and he might here give, chiefly as a summary from Mr. Scoble's own Paper, a list of the advantages which manufacturers would secure by coming to the Garden City Estate from crowded centres. These would be, low rents and rates, better, lighter, more healthy, more economically designed, and, therefore, more efficient factories and workshops; economy in distribution; yard conveniences; sidings at works; opportunities to readily extend works; lower fire insurance premiums and greater efficiency of labour owing to healthy conditions under which the work-people would live and recreate themselves.

To this list he (Mr. Howard) would add what he believed would be no inconsiderable advantage, the splendid advertisement which manufacturers would secure when taking part in a scheme which had already attracted world-wide attention. In addition to these direct advantages to manufacturers, they would profit indirectly by the following benefits which would be secured for the workers, and which he again summarised from Mr. Scoble's Paper: better homes at lower rents, with gardens, which would, besides affording healthy recreation, bring in a substantial return; time not wasted or money spent as now in travelling to and from work; physical power improved by better conditions at home and at work; the fascinations of the public-house kept in restraint by abundant counter attractions and opportunities of indoor and outdoor recreation, and by vastly improved home life.

Manufacturers would also gain, as citizens of this Empire, in the national advantages to which Mr. Scoble referred; the restoration of the people to the land, bringing in its train the much-needed revival of agriculture;

the diminution of insanity, which is due to the unhealthy conditions under which people now live and to the ever-present temptations to drink. Mr. Scoble also foresaw, as a result of industrial redistribution—and he shared this view—some measure of relief to the congested state of our existing towns and cities, and a way, therefore, opened for their improvement at a diminished cost.

Among the most hopeful results which Mr. Scoble foresaw as following on decentralisation of factories would be the increased intercourse between employer and employed, which would tend to convince both parties that their interests are, at least at many points, really identical, and that their needs are reciprocal rather than antagonistic; for, as Mr. Scoble said, "the "manufacturer who studies the well-being of his "employees, not only in their works, but in their homes, "will receive in return a more willing and, therefore, "more efficient service": and he ventured to say that nowhere is there more probability of these friendly relations being set up than on the clean slate of a Garden City to which Mr. Martin has referred.

All this, however, was theory, but he might go further and say that his belief that manufacturers would go to the estate was now founded also on the fact that definite arrangements were already in course of being made in that direction, and that numerous manufacturers were giving full consideration to the project, with a view to taking part in it.

Why Mr. Scoble should suggest, as he did in his Paper, that no manufacturer would go to their estate, he was at a loss to understand, for all the advantages which Mr. Scoble suggested as obtainable by industrial re-distribution could be obtained here, and, so far as he knew, nowhere else.

In his criticism, Mr. Scoble suggested (page 37) the great difficulty, under the Garden City Scheme, of a manufacturer who had no capital building his factory. Well, he ventured to say that the whole argument for industrial re-distribution, if one had to imagine that no manufacturer had capital with which to start his manufactory in any place, was gone. This suggestion of Mr. Scoble's was rather a curious one, especially when it was borne in mind that, in a later part of his Paper, when the argument came to turn on another point, he suggested that manufacturers with capital were elsewhere prepared not only to build their factories, but to buy the land and put up the cottages, and, indeed, build for their own workpeople an entirely new town or village.

With regard to the industries for which the estate was suitable, many of them were already represented by practical men wishing to take part in the scheme. It was obvious that there were certain trades which were entirely out of the question. Say, for instance, shipbuilding, as an extreme example. The site would hardly be suited, perhaps, for engineering works with large and heavy machinery, but it would be very suitable for engineering works dealing with comparatively small pieces of metal or light machinery. It was a site eminently fitted, he ventured to say, for the motor-car industry, and among industries that were seeking accommodation on the site were the works of Messrs. Ewart and Son, employing some 300 men in London. This firm, who were the makers of what was known as the "Lightning Geyser," was very keen on going on this estate and starting a factory with about 60 men, as a commencement.

Other industries he might mention as suitable and as distinctly interested were printing, bookbinding, mantle-

making, the manufacture of underclothing, blouses, hats, gloves, shirts, and collars, basket-making, tapestry, cabinet making, biscuits and confectionery.

Some of those trades might seem rather insignificant. People, when speaking of the transfer of industries, were accustomed to think of great engineering works and such enterprises, but the clothes-making industry in London alone was an enormous industry; and Professor Marshall pointed out a good many years ago that 160,000 people in London were engaged in the making of clothes; thus, quite contrary to all economic principles, pursuing an industry where rents were extremely high, and where conditions were as unfavourable as could possibly be imagined.

He thought all would agree that it was not desirable in building an entirely new town that the people in that town should consist exclusively of those in immediate connection with the industry involved; in other words, one did not want to divide the classes of which our communities were made up more than was necessary. It certainly would lend an impetus to this movement, and make more perfect its roundness and completeness, if a number of persons could be induced to come there for purely residential purposes.

At the south-west of the estate there were admirable sites on which good residences could be built. There was also a good deal of land in various parts of the estate of considerable altitude, commanding very fine views. Already a number of people interested in the movement were willing to take up their residence in the town, and they would be welcomed not only as representing a class desirable in themselves, but also because many of those residents would be likely to possess that leisure and knowledge which would enable

them to put forth those subsidiary efforts referred to by Mr. Neville towards the conclusion of his Paper.

He might say, in passing, that it was quite possible to provide good golf links on the estate. Then a scheme of this sort, he was sure all would agree, lent itself to what was known as "intensive culture," and there was every prospect that a much greater amount of food would soon be produced on the estate than was produced at the present time.

If a number of manufacturers established themselves there, it would be readily seen that subsidiary industries and enterprises would naturally arise in the town, such as—to mention a few which readily occurred to him—laundries, shops, bakeries, and, of course, schools and churches.

A question might be asked, and a very natural question it would be, as to the capital of this undertaking.

In his Paper, Mr. Neville stated that the capital of the Company was £300,000, but he need hardly say that if that were not sufficient, they could provide for an increase of capital. It was true that the £300,000 had not been all subscribed—that they had at present only raised £87,000. But when he remembered that the capital at the outset of the movement, if he might put it so, was less as expressed in shillings than it was now as expressed in thousands of pounds, personally he did not entertain any doubt as to getting the necessary capital, when they were able to show, as they would shortly show, the public advantages, which were real, and point to manufacturers definitely settling on the estate. Yet that not inconsiderable amount of £87,000 had been obtained without a single penny being spent on advertisements, thanks to the truly wonderful manner in which the fourth estate had come to their aid.

Another question, and a very natural one, might arise as to who would build the factories. It was not intended that the Company should build them. It was intended that the manufacturers who came there should build for themselves. But he would assume for a moment that some manufacturers who wished to come to the estate were not able to provide out of their own money sufficient to build a factory. Surely such as these would be in a far better position to get their factories built under the proposed scheme than under the more nebulous propositions of Mr. Scoble. If a manufacturer came and said, "I should be glad to put up works on your estate, but "have not the capital," he had no doubt, though they would not be ready or willing to find the capital as a Company, they could set forces in motion to secure its advance by others.

With regard to the building of the houses, no definite decision had been come to on that point; but he thought he might say it was not intended that the Company should itself engage at all largely in the operation of building houses, and that they would warmly welcome the co-operation of others in that direction. He thought that if they could show that a number of manufacturers were prepared to put up works on the estate, on condition that they could get cottages erected, there would not be any great difficulty in subsidiary organisations getting capital to erect such cottages.

Reference had been made by Mr. Martin to the fact that it had been found very desirable, when setting up industries for employing men, that they should provide also some employment for the girls, and this Company would be able, through the organisation of the Garden City Association (which was a distinct body from the

Company, and was assisting it with all its power) to find out what were the needs of the people going to the estate, in this and many other respects.

Take the case of a manufacturer who proposed to go to this estate with a certain number of men. It would be easy to find from him who were the people proposing to go, and whether there were any girl members of their families for whom it would be desirable to find work and then they would be able to set machinery in motion for securing their employment. A number of manufacturers who would be employing female labour were desirous of taking part in some such experiment as this. One difficulty would possibly be, how to provide homes for the girls; but if it were known who the people were who were coming, this difficulty could soon be overcome, even if it were necessary and expedient to arrange a Girls' Club to start with.

He ought to have said, in its place, that apart from the question of a considerable amount of brick-earth on the estate, which might possibly prove valuable, there was in the district a large supply of bricks of very good quality at low cost.

Now he came to what he confessed was a very difficult and thorny question, namely, the tenure of the land.

He admitted it would seem to almost anyone at first sight that a manufacturer, or anyone else, going to that estate would prefer a freehold which he would be able to buy outright. It was not proposed to adopt that system, but rather to lease the land for the purpose of erecting factories and cottages. But he might say that they were not going to discount the prospects of success of their main scheme, for inducing manufacturers and others from the crowded centres to come into an open

healthy district, by any slavish adhesion to any particular theory, and, in passing, he would like to point out that what was generally called "a freehold" was somewhat misnamed. Supposing, for instance, a manufacturer had purchased a "freehold" on the estate, he would still have to provide funds with which water could be supplied roads made, sewers and drains constructed, and schools built, equipped, and maintained. He was bound, though he had what was called "a freehold," to pay in some way or other for those services. Broadly speaking, that was all he would have to do under their project. He would have a longish lease, renewable of course on fair and proper terms, and the rent he would pay to the Company, after providing for dividends (limited to five per cent.), would be expended in doing just those things.

So it seemed to him, that there was this alternative to be considered, was it better for a manufacturer to have "a freehold," and pay "rates" which were an absolutely unknown quantity, or to have a lease and pay "rent," so called, which again was an unknown quantity, at least for any very long period. He did not think anyone could say—he confessed he could not—what the ultimate result would be, but he would say that there was no way whatever by which a manufacturer, who purchased land as an experiment on his own account, could secure to himself as an individual the whole increment in the value of the land, as suggested by Mr. Scoble.

Suppose, for example, an estate were run on different lines from those they intended, and a manufacturer purchased a piece of land on which to erect his factory. If the matter remained there how was he going to provide or have provided for him his workmen's cottages? Would land be sold to him for that purpose as cheaply after he

ken his site for his factory as beforehand? He
Howard) knew it would not be. He knew that if
ufacturer bought a piece of land on which to put
ory he did not secure the increment of value all
him, but that increment went elsewhere. But the
n City Company claimed to be able to secure a
part of that increment of value for him by securing
tract of land around the manufacturer at a very
able price. Precisely in what form the project
work out they could not say; but no doubt, as
oward Martin had said (and he thought this was
important point), starting as they did with a
late, they ought to be able to provide water, light,
wer extremely economically. Because they could
s, they might reasonably expect the immigration
town to be sufficiently rapid to make the scheme
ful from a financial point of view; for all must
with Mr. Martin that if the development of the
did not move forward fairly fast it would be
t to raise capital to keep things going.
far as he knew, there had never been such a large,
e, and organised attempt to transfer trades to a
lar area as that which they were making. But
lt that, being desirous of stimulating this move-
of industrial re-distribution, they should build
own with a rapidity that some people perhaps did
ticipate, and though they might at first make
es, they would learn how to avoid them in the
and at the second and third attempt better things
ould, no doubt, be accomplished.

H. T. Eve (Fellow) said that, as it seemed impos-
t that late hour, to give an opportunity of speaking

to the many present who desired to express their views on this important subject, he would move the adjournment of the discussion to a future Meeting.

The vote of thanks to the author having been put and carried unanimously, the discussion was then adjourned to the meeting of Monday, February 8th.

AT

THE ORDINARY GENERAL MEETING,

Held on Monday, February 8th, 1904.

ALBERT BUCK (President) in the Chair.

e discussion on the Paper read at the Ordinary
al Meeting of Monday, 25th January, 1904, by
NEVILLE, K.C., entitled: "Garden Cities as a
ıod of Industrial Distribution" was resumed by

H. T. EVE (Fellow), who said he was glad to
ıe opportunity afforded him by the adjournment
discussion to offer a few remarks on Mr. Ralph
's interesting Paper, and he might say at once
did not propose to touch on what he might call
timental aspect of the question, but would confine
ıarks to its practical side, in the hope that those
ɔk part in the discussion might be able to give
ectors—eminent and practical men as they were
advice and assistance in furtherance of the
ıking on which they had embarked.
vas interesting, from the surveyor's point of view,
that 4,000 acres in a ring fence, and within 40
f London, could be bought from a number of
at, comparatively speaking, a fairly low market

There was no Act of Parliament—no Lands Clauses Act—to control the purchase, and the Garden City promoters had to look round and buy land first from one owner and then from another, until they completed their 4,000 acres. At the first, there happened to be, he believed, an estate of 500 or 600 acres for sale. This formed the nucleus, and it was interesting to note the method which the Company adopted of going quietly to the owners and finding out if they could sell, and, if so, at what price, and finally paying a deposit of 5 per cent. and securing an option terminable a few months hence. As a result of the pertinacity with which the Company went to work (much of the credit being due to the untiring efforts of Mr. Warren, their solicitor) they were successful in the end in buying the whole 4,000 acres from something like 17 to 20 owners. A reference to the original plan by which they worked, and on which each owner's land was indicated by a different colour, showed some of the difficulties the Company had to meet before they got the 4,000 acres.

The end was exciting, for it resulted, as things sometimes did, in an encounter with a lady, who, of course, said she would not sell at any price, for it was not money that she wanted! As she owned two common rights on Norton Common, and the directors had secured 34 out of 36 common rights, it was very important that she should be conciliated. He did not know to whom the credit was due that she was at last mollified, but, at all events, she yielded.

The timber, which was always a valuable item, was included in the price, and some of the land being copyhold, the directors were able to buy it at a moderate price, and as they also bought the adjoining land,

ther with the rights of the Lord of the Manor, this was automatically enfranchised.

he idea was to create a town in the midst of those acres, and he was one of those who, as a practical of business, thought that a prosperous town would day flourish there. He lived near the site, and ith many of his neighbours, fully believed that the ne would, in the end, be a success.

was always easy to criticise. Anyone could find but he thought the directors would be grateful for a more help and a little less criticism, especially from ctical body of men like The Surveyors' Institution. d no doubt that in the minds of many present there grave forebodings as the future of the scheme; ficulties and even impossibilities were only too ent to a surveyor's eye; and yet, if those feelings be stifled for the time, and the plain, practical, on sense of the members present be brought to bear, ought more advantage would accrue to the com- y, and also to the directors of the movement, than result from the most expert criticism.

ne thing that the Company had not forgotten was relation to the local authorities. Whatever their and motives, they knew they must be content to y the position of a big ground landlord, and, as such, be controlled by the local authority.

t what interested surveyors especially was how own was to be laid out, and on that point surely no uld help the directors better than The Surveyors' ution. There must be some manufactories, but not arily many. In an ordinary town of 30,000 in- nts, there were not usually a large number of ies, and he was sure, from the promises already ed, that the required number of manufacturers

would be found. But a good part of the estate was eminently suitable for residences. Possessing the advantages it did, and within 40 minutes of London, he was certain this portion would soon be taken up, like any other good site, when properly developed.

Personally, he hoped the Company would not try to limit the town to 30,000 inhabitants, by binding themselves under any stringent trust deed that there must never be more than that number. He could imagine the case of a manufacturer, who, if he wanted to extend his works, might be told that he must not do it because it was against the trust deed of the Company. He hoped that some day there would not only be room for 30,000, but for a very much larger town. He was not one of those who attached such very great importance to an agricultural belt, for he was sure, if the town were properly laid out, there would be plenty of fresh air without an agricultural belt.

As to space, Mr. Scoble had assumed, he thought, that every roadway was to be 120 feet wide; but that was hardly proposed. There was to be one street, he believed, of a total width of 130 feet; others would be laid out at 40 feet minimum, and others at 60 feet, such as would be found in any well-regulated town.

The estate had the very great advantage of being traversed by three good main roads, as well as a railway. The amount of frontage to main roads, of land that could be let for building without any expense of forming estate roads, was greater, he thought, than in almost any other 4,000 acres to be found anywhere.

What the directors especially wanted advice on at the present time was, how many houses per acre ought to be allowed for in such a "Garden City." He was talking about cottages only, for this must be treated

as one large building estate. Many members t had, from time to time, laid out building sites m five acres to 100 or 200 acres, with possibly 500 behind, and this was simply a building estate on a scale.

had no knowledge of what the directors proposed but he feared they might possibly be induced e of fresh air, to make the cottage plots too deep, us lose their fair profit per acre. Plots 20 feet by et would carry 14 or 15 cottages per acre. The builder, who knew how to make more of a building than anyone else, would probably lay out his plots by 70 feet deep, or even less, which would work 47 cottages to the acre. Look at the difference! sing the ground rent to be £10 an acre; in the en City" this would represent 15*s.* per annum per e, and in the case of the jerry builder it would be cottage, or 1*d.* per week, and the jerry builder have to make less cross-roads than the man who ected 14 or 15 cottages. But if the plots were laid 0 feet deep, he thought it would be more than and that less would be amply sufficient. A plot feet frontage by 150 feet depth, making one acre, comfortably hold three blocks of four cottages and ir. He understood that rows of cottages would not wed, but, at most, four in a block.

e question of the terms of letting or sale was a ifficult one, and he was sure the directors would lly welcome any practical advice concerning it. were prevented from parting with the freehold from ture of the transaction. They must let on lease, e question was for what term, whether 99 years years; and under what scheme could the ground be periodically reviewed. That the ground rents

should be reviewed from time to time was, he thought, essential to the scheme, for the directors, as ground landlords, must have money for the use of the town in reduction of the rates. It was really like a great London ground landlord developing his estate, and instead of appropriating the profit for himself and his grandchildren, giving it to the community, after deducting 5 per cent. That alone seemed to him to insure the success of the scheme, or, at any rate, to show that those who were promoting it were absolutely honest and working for no other purpose than the welfare of their fellow-men.

With regard to this point he might mention the names of a few of the promoters of the project, for many people seemed to think its advocates were merely a set of "cranks," but they were, to his knowledge, hard-headed business men, moneyed men, and the sort of men who would, he was sure, carry out their purpose with all the more determination if they were told that it was impossible. With such men at the head it seemed to him the scheme was bound to succeed. First of all, the chairman was Mr. Ralph Neville, K.C., who had kindly written the Paper now under discussion; then Mr. Cadbury, who had made a Garden City of his own, and therefore knew the difficulties and how to overcome them. Mr. Lever, who had done the same thing, was also a director. Then there was Mr. Idris, a great mineral water manufacturer; Mr. Harris, a well-known solicitor; and Lord Brassey, who was so impressed with the merits of the scheme, that he wrote to the directors asking if he might join the board without ever having been approached by them. There were many others whose names, if he were to read them, would be recognised as household words, and these were all acting, not with a view to profit, but with the

m of ameliorating the lot of those who were not position to help themselves to better and more ful surroundings. He hoped, therefore, that the g would not treat the subject in any carping or erous spirit, but that surveyors would give their dvice and assistance in helping forward what ld only regard as a splendid and beneficent work, ved in a lofty spirit of practical and disinterested throphy.

. H. T. SCOBLE (Professional Associate) was afraid st ask for some indulgence, as he hardly felt able to Mr. Eve had suggested, or to approach the subject as h he believed the scheme were bound to succeed, and quently to direct all his efforts to forwarding its s. The views expressed in his own Paper were, he , candidly critical, and in Mr. Neville's Paper and Howard's remarks he found nothing to alter his sions. The author of the present Paper failed to stand his "hostility to the enterprise"; said he was prised at the gratuitous attack upon the competence common sense of the management, which Mr. Scoble his part of the Paper permits himself to make," ccused him of exulting over the reduction in the f the land obtained.

to the first point, he (Mr. Scoble) did not consider is remarks had gone in any way beyond legitimate sm of a matter in respect of which the British was appealed to for funds.

n the second point—as to his attack upon the com- ce and common sense of the management—the r of the Paper admitted, "The preliminary work been proved by our experience to be much greater n one would have anticipated;" and it was only

reasonable to suppose that when it came to the actual carrying out of such a large scheme the difficulties that were not foreseen would be at least as great as those that had been encountered in merely preliminary work.

The charge against him of exulting over the reduction of the land area arose out of this phrase in his (Mr. Scoble's) Paper: "There is an important alteration " in the carrying out of the Garden City scheme, so far, " to which attention should be directed, and that is the " reduction, at one fell swoop, of the belt of agricultural " land by 44 per cent., *i.e.* for 5,000 (6,000—1,000) to " 2,800 (3,800—1,000) acres, with no corresponding dimi- " nution in the size of the town." He would submit that this was very sober exultation.

The burden of Mr. Neville's remarks seemed to be that he had criticised the Garden City Company as though it were the Garden City Association, and that he had no ground whatever for believing that the Company intended, or had ever intended, to carry out the views presented in Mr. Howard's book. But, on the other hand, a prospectus of the Company had been drawn up in which he found the first thing stated was, " The Company " has been formed to develope an estate of about 3,800 " acres, between Hitchin and Baldock, on the lines " suggested by Mr. Ebenezer Howard in his book " entitled *Garden Cities of To-morrow*, with any " necessary modifications." Again, as if to make the matter quite clear, it was stated that the objects for which the Company was established were " To promote " and further the distribution of the industrial population " upon the land upon the lines suggested in Mr. Ebenezer " Howard's book entitled *Garden Cities of To-morrow* " (published by Swan, Sonnenschein, and Company, " Limited, in 1902), and to form a Garden City, that

o say, a town or settlement for agricultural, indus-
l, commercial, and residential purposes, or any of
m, in accordance with Mr. Howard's scheme or any
lification thereof."

ow it seemed to him, in view of the evidence he
sed, that he was perfectly justified in assuming
to a very large extent indeed, the scheme would be
d out as far as possible on the lines of Mr. Howard's

e regretted that Mr. Neville did not reply to even
f the criticisms on page 37 of his (Mr. Scoble's)
. He could not say he was surprised, but, on the
hand, those criticisms must stand unless they were
d.

n page 148 of his Paper, Mr. Neville spoke of
uiring sites for industrial settlements at agricultural
es," and he said that to Mr. Howard must be
the credit for that idea. But it seemed to him
cquiring agricultural sites for industrial purposes
een done for a considerable time in this country,
at there was, therefore, no extreme novelty in the

here the Garden City project betrayed its chief
ness was, in his opinion, with regard to the manu-
er. He was hardly referred to in the scheme
ht forward. Similarly, Mr. Neville, at page 149,
ome of the chief features for which a Garden City
o be established, and the manufacturer was not
oned at all. Nor was it shown that he would be
ted by moving there, or that he could produce at
ller cost or make a bigger profit, which he (Mr.
e) submitted was the chief thing after all in an
rial settlement.

e did not want merely to show that labourers

could live in better conditions in the country. He believed that if manufacturers studied their own interests they would arrange that the examples of Port Sunlight and Bournville should be followed; but he was accused of adversely criticising people whom he had himself held up as patterns and exemplars. Cadbury and Lever had done precisely what he advocated. They had bought freehold land and retained the increment for themselves. Pious wishes and exhortation Mr. Neville did not believe in, but if one could show a prospect of increased efficiency of labour, with improved conditions of existence for the workers, and a steady 4 per cent. return on capital, manufacturers would consider it.

Then as to the train service. It was said that Hitchin was within 40 minutes or so of London. He had looked through a Bradshaw and found there were five Great Northern down trains which called at all intermediate stations between Hitchin and Cambridge, and the average time for the trains was scheduled between King's Cross and Hitchin as 65 minutes, and those up trains from Hitchin to King's Cross which had any connection with the site averaged an hour at present, and to that would have to be added the few minutes occupied in getting from the new station to Hitchin. Of course it was possible that the railway company might afford more facilities.

But the main point that Mr. Howard's remarks brought forward was that the directors were not going to let "slavish adhesion" to any one idea stand in the way of the development of this site. Hitherto a great feature had been made of the fact that the unearned increment would accrue to the benefit of the community, and the members of the Garden City Association certainly looked on that as one of the chief points to be borne in

. But Mr. Howard, in his remarks on page 179, said might say that they were not going to discount the ospects of success of their main scheme, for inducing nufacturers and others from the crowded centres come into an open healthy district, by any slavish hesion to any particular theory"; and then passed on ve some information on the question of freeholds.

f the promoters were prepared to grant the manurers freeholds, then one of the chief objections he urged fell to the ground, for he had pointed out a manufacturer, moving to the country, desired to er himself as independent as possible. If he had a old he knew where he stood, and realised that a future time, he wished to turn his business into a ed company, or to sell it, he had a freehold which ould offer, and some increment which had a real .

e (Mr. Scoble) could not find that he had even ested, as Mr. Howard would lead one to suppose es 180-1), that manufacturers should buy land piece- first for a factory, and only later on for housing. criticism there and in the public press is a not unnon form of controversy, viz. to set up a bogey and demolish it, while the real argument remained unered.

n a letter to the *St. James's Gazette,* Mr. Howard e, " Mr. Scoble says that whenever a factory goes , it must take care to go alone—that there should on any account be any concerted action." He was unable to find any justification whatever for that ment.

n pages 171-2 Mr. Howard was at some pains to ess his inability to grasp the purport of his Scoble's) arguments as to the complete development

of the site. It would seem manifest that in establishing a new community a great many difficulties would arise which would not occur in the case of a place with a certain population already settled.

Take a water company in an ordinary rural district. When a water company started it generally had the promise of a number of fairly large consumers, and then gradually the inhabitants of the neighbourhood took the water, but it was not until from seven to fourteen years after the starting of the undertaking that the first dividends were paid.

He would like to know, with regard to the "Garden "City," if there were any other methods by which dividends would come in more quickly. He could foresee a large expenditure on water and sewerage, road making, improvements, and mains that would be wanted. According to the circular issued by the Garden City Company, it was proposed to supply power to manufacturers, so that they need not have their own chimneys, and so forth; and it was suggested that there were also many modern conveniences that could be provided on the site economically. True they could be, and if there were an enormous capital and they were authorised by Parliament to pay interest out of capital for a period of years, people might be induced to invest, but who would now do so and tie up his money for an indefinite time, and be limited to 5 per cent.? If people went in for speculative risks they wanted more than 5 per cent.

The author of the scheme was very sanguine that the money would be forthcoming, but he was afraid his own views hardly ran in the same direction.

It was said by Mr. Neville that £87,000 had been subscribed by the members of the Association and their immediate friends, who were looking forward to the

ying out of many the ideas presented in Mr. Howard's
k as nearly as possible.

One thing they expected was that the unearned
ement was coming to the community. In a letter
vening the last annual meeting of the Garden City
ociation it was stated that £250 was needed to put
Association on a sound financial footing. Mr.
vard's remark (page 177) was rather naive: "but
need hardly say that if that were not sufficient,
ey could provide for an increase of capital. It
as true that the £300,000 had not been all sub-
ribed—that they had at present only raised £87,000."
He should hardly expect the members of the Associa-
to subscribe the rest of the amount, and as regarded
general public, he could not say, but he held a very
nite opinion.

The Company, Mr. Howard said, did not propose to
d the factories, but would, if necessary, set forces in
ion to obtain the necessary advances from others.
in, the Association could set machinery in motion
ecure the employment of the girl members of the
lies. He hoped it might be so, if the scheme were
eeded with, but ventured to suggest that it would
be found an easy matter in practice.

If he might to some extent summarise his ideas with
rd to the Garden City, he would say that on three
n issues he found it impossible to imagine a success-
end. In the first place the difficulties of beginning
ew settlement had been under-estimated and the
ntages exaggerated. An enormous capital expendi-
would be required, and many of its features could
be realised for a very considerable time. Secondly,
'predominant partner," the manufacturer, was hardly
ight into the scheme. He had conversed with a good

many manufacturers with regard to the establishment of country factories, and found them unanimously in favour of managing their own concerns, apprehensive of any scheme even remotely socialistic in character, and utterly opposed to the acquisition of rural sites, other than freehold, unless compensating advantages of no mean order were already in existence. Thirdly, he still held the view that a complete settlement must be established and could not see how a desire to open a branch factory to employ 60 men helped materially in the building of a city to contain 30,000 people.

Mr. William Woodward (Fellow) said it would be conceded, he thought, that the discussion which had followed the reading of the Paper had been sufficiently discursive. It had wandered somewhat far into semi-sociological and semi-political subjects of great interest to the community at large, and following this example, he proposed, on the present occasion, to leave the practical part to Mr. Eve, who had so well dealt with it, and to make a few remarks on the general observations of previous speakers.

He had not been present to hear Mr. Scoble's Paper read and he had only had the pleasure, for the first time that night, of meeting Mr. Scoble, and he must confess to some surprise that a young man should be inclined to look seriously on the difficulties which might beset the scheme and not rather have regarded it as an ideal, and yet a very practical ideal which he hoped to live to see consummated in the way its supporters desired.

He (the speaker) was not in any way connected with the Garden City, and was therefore able the better to say how much he admired the perseverance with which

Ebenezer Howard had gone to work on his scheme, ch, although an ideal scheme, had very much of the ctical in it.

With regard to some of the observations made by vious speakers, he would like to make a few remarks. t he observed a reference to the width of Portland e. That thoroughfare, one of our widest streets, was feet from house to house, and not 100 feet as stated he Paper.

On page 45 Mr. Scoble talked of loss of stamina ng town dwellers; but loss of stamina was not, he ght, necessarily consequent on dwelling in town, or ll events in London. If he might be permitted to o, he would refer to his own case. He was a born doner, had lived in London all his life, and he d to die in London. He did not know that he ered from want of stamina, and he did not think he ld much improve in stamina if he went to live in country. He thought a Londoner, as a rule, was often a healthy young fellow.

Then with reference to the London County Council iding workmen's dwellings (page 46), he had said re, not only in that room, but elsewhere, that he was inced that these dwellings could be easily provided mall cost for the proper persons, if it were only ible to get the British workman to work fairly. It he himself who, by his idleness, raised the price of ur so considerably that rents must be charged which e almost prohibitive to those who should occupy the ns.

The migration of factories was going on very rapidly. might instance the case of the well-known manurers, Messrs. Saxby and Farmer, who for many s had large business premises at Kilburn. He under-

stood that on their moving away from London the workmen had been transported, he thought, to Leicester, where it was stated that nearly the whole of the workmen had taken their lodgings. Messrs. Saxby and Farmer had started their factory in the country, and why? Simply because, he apprehended, they were unable to pay the enormous rates which had accrued in London in consequence of municipal trading, and the idleness of the British workman.

Now with regard to the death rate in London. When he read his Paper on the proposed improvements in London, in February, 1886, he took the trouble to extract from the Registrar-General's Returns for 1884 the following figures, which might be interesting.

Those figures were, per 1,000 of the population: St. Petersburg 31·9, Rome 27·4, Venice 26·8, Berlin 26·4, Vienna 26·3, New York 25·9, Inner London 20·3, Greater London 19·7; which said much for the healthy way in which our magnificent city was managed.

On page 66 Mr. Scoble referred to the alarming increase of insanity. There certainly was an alarming increase in insanity, but it was due to numerous and varied causes. Dr. Forbes-Winslow had said that one-quarter of the lunacy was due to drink. Now it was a very curious fact but the increase in lunacy in this country synchronised with the increased accommodation provided for lunatics by the public bodies, and he believed that if they went on building lunatic asylums and providing them with billiard tables, tennis courts, and other luxuries it would be found that there would be a great many more lunatics even than at present.

On page 66 Mr. Scoble said that "the manufacturer "who studied the well-being of his employees, not only "in the works, but in their homes as well, will receive

return a more willing and, therefore, better vice."

e was very glad to find those were the views of coble; they were certainly not his own.

ow Mr. Wheeler was a man who well understood neaning of providing dwellings for the working s, for he had given very considerable study at subject during his long connection with the gh of Kensington, and his observations on the ccasion seemed to him to be exceedingly interesting. aid that the workman should not be widely ated from his work, and he believed that, to a large t, that was what should be aimed at. Take an ple already mentioned—Maple's and Shoolbred's, hands worked well, with their dwellings in the ty of their works, and if they wanted a holiday t a little way out of town.

page 116 Mr. Wheeler said: "A very considerable portion of the working classes were abundantly to provide their own homes and to pay for decent mmodation." He had already expressed an n that they should certainly be able to do so, if ould be induced to work.

page 117 Mr. Wheeler referred to a most tant movement in Camberwell, where, instead of ng large dwellings for the working classes, the rities bought insanitary houses and put them into; an example that might well be followed by other

fully agreed with Mr. Chatfeild Clarke that y could hope to build workmen's dwellings at a unless they could get the sites at $3\frac{1}{2}d.$ or $4d.$ per uper. per annum, at which price they might hope return of $3\frac{1}{2}$ or 4 per cent. per annum.

With regard to the Paper generally, he sincerely thanked the author for bringing the matter forward. He felt sure that it was not from any personal interest that the promoters had devoted so much time and thought to the subject, and he trusted he might live to see the success of what he believed to be a very practical ideal.

Mr. Wm. L. Madgen (Visitor) said the members of The Surveyors' Institution, as well as the Electrical Engineers, might have some part to play in the solution of the housing question with which the Paper dealt.

The legislature seemed, at different times, to adopt very different methods of dealing with not very different problems. It proceeded in effect, when endeavouring to reduce the drink traffic, to limit the number of public-houses, and in other ways to place restrictions on the facilities for obtaining liquor. The idea was "to make "people sober," as had been said, "by Act of Parliament"; but when they had to deal with such a serious question as overcrowding in our large industrial towns, they seemed to approach it from an entirely different point of view. They seemed to think that by a Cheap Trains Act, by measures to facilitate the Housing of the Working Classes, and by similar means, it was possible to reduce overcrowding, but he was glad to say that the absurdity of such methods was gradually becoming realised. The greater the attractiveness of London, or any other large city, relatively to other districts, the more inducement was afforded the people to come and reside within it. It would be remembered when, years ago, legislation was promoted to reduce some social trouble, Lord Melbourne, then Prime Minister, said, "Why cannot you leave it alone?" He felt confident that if people were not constantly itching to intermeddle, things would, to a large extent, right themselves.

Another cause at work tending to increase the ctiveness of our large towns relatively to country icts and small towns in the provinces, was the fierce isiveness of local authorities, who seemed sometimes ink they had become a law unto themselves. Parlia- vested them with a veto as to tramways and electric r supply, and it had followed that such important ntages for workers as improved traffic facilities and power supply tended to become concentrated in towns, and that was another cause which, as ad said, increased the attractiveness of those large trial centres.

Iost of those present were aware of the difficulty of g a factory site to-day within 20 miles of London. had to consider soil, water supply, transport by ay or water, and many other things. If traffic ties by means of a comprehensive scheme of light ays and cheap electric power supply were facilitated e local authorities many of the difficulties of find- tractive sites would disappear.

aving taken a great interest in the subject of trial decentralisation, he had visited many small in the neighbourhood of London, and had found a er of them already replete with modern require- , with hospitals, open spaces, shops, public build- railway stations, gas, water and sewerage, on an scale, and he believed that if those towns were coupled up to the rest of the community by means ht railways and provided with cheap power supply would then offer a very strong inducement to manu- rers to establish works there. He admired very the work which had been done by Mr. Ebenezer rd, who had been able to touch the public imagina- in a way that a practical engineer, or a surveyor

with a serious regard to possibilities, would be unable to do. He had necessarily to paint on a large canvas, and perhaps to exaggerate a little in order to get his effects. That was no reproach to him. He admired the work he had done, for he and his friends had set themselves a very high ideal, and he hoped they would continue to push it to fulfilment.

But why start new towns? It was more than he could understand. Take a common case in every day life by way of illustration. A newly-married couple setting up a home wanted furniture, but they were not going to buy furniture in the rural wilds; they wanted a baker, a grocer, a chemist, and even perhaps a perambulator maker. All these they could easily find in even a small town, but could hardly expect to be supplied in a newly-founded "Garden City."

Many towns that he had in mind—Hertford, Ware, St. Albans, Aylesbury, or Banbury, for example—were, most of them, in communication by railway and canal, and were provided with water supply, gas, hospitals parks, policemen, in fact with every necessity. Why then start new towns? Why not go alongside and take advantage of existing facilities.

He had so much admiration for the work done by Mr. Howard and his friends that he did not wish to press any merely destructive criticism, but what he urged upon them was not to build new towns, but to try and educate the authorities of existing ones. The housing question had reached such a stage that they would now find in most parts of the country a receptive spirit: they would find business and professional men who wished well by the community, and would take an active interest in practical methods. He believed that if Mr. Howard and his friends employed their enthusiasm and their resources in such a

, they would do far more good than by attempting tart communities *ab ovo.*

Mr. E. W. HUDSON (Fellow) said he thought that a subject as that now under discussion could hardly dealt with to any advantage at a meeting of the itution if the right of free criticism were denied to kers, as had been suggested, and if the proceedings sisted solely in their giving good advice to directors. During the discussion Mr. Scoble had been attacked use he had not suggested where £150,000 could be owed to further the scheme. He thought that if Scoble had done that, he ought certainly to have entitled to 1½ per cent. commission on the transac- It was a question of finance, on which the success he plan would ultimately be found to depend. It a beautiful ideal, but Mr. Neville's Paper dealt so ely with degeneracy and general ideas that until he heard Mr. Howard and Mr. Eve, he was completely he clouds as to what the scheme was to be, for he had had the prospectus.

But to be practical, he would turn to the question of nce. Although he was neither very young, nor so old, he had watched the growth of various estates. the question of insufficiency of capital, he had seen e of the best designed estates go amiss. Plans which e thought to be well laid, would "gang agley," ply for the want of adequate capital. The £300,000 not seem to him to be an adequate amount to carry such a scheme as this. He was of the opinion of King, when he said it was an ideal that should be ied into practice by the Imperial authorities. He did think it was possible, without a large increase of ital, to carry the scheme out to perfection.

The acquisition of land on payment of a deposit with interest accruing on the remainder while slowly developing, was likely to wreck the speculation, and had done so, for want of capital, in cases under his own observation, which should otherwise have been successes. If the "Garden City" produced from time to time a plum, the fruity portion must go to meet that claim, and the stone—(cracked, that the kernel may provide law and management expenses)—the fragments of the stone could alone fall to the syndicate or shareholders. Hence the need for a huge capital to hold out for (in a few cases) ultimate and remunerative profit. Even millionaire directors would not go on finding capital for ever, unless good profits *pro râta* were being made.

The matter of roads and paths had been mentioned, and, in regard to these, his humble opinion was, that to arrange for very wide streets would be needless expense on any proposed site.

He had in his mind a road, which used to be called the "New Road" in his young days, which was laid out on sound principles, with a roadway of fair width and with long front gardens on either side, which gardens, if not allowed to be built upon, formed most desirable "lungs" for the neighbourhood. The cost of watering, and expenses of that kind, would not be excessive, and such forecourts could at any future time be drawn upon if the need for widening arose.

The carriageway material, though probably of flints in the first place, should ultimately, for hygienic reasons, be asphalte. In laying down the lines of the proposed "City of Hygeia," the late Sir B. W. Richardson had made the extraordinary mistake of specifying wood for carriageway surfaces. Anything dirtier or more unsanitary it was impossible to conceive.

Vith regard to the question of the stamina of the ish race, he (the speaker) did not take such a pessi-ic view. Mr. Neville, in his Paper, was a strong cate of plenty of fresh air. All of them were agreed as a most desirable thing to have, but his experience that, if one provided fresh air ventilators in a poor 's dwelling, the first thing he did was to block it up render all precautions entirely useless.

As to the degeneracy of town dwellers, the London t boy was, he thought, if not very clean, at least icularly pugnacious and ready to attack anybody, atter of what size.

He believed sugar as a food was not without its uses pairing bodily exhaustion.

He did not believe that recruiting officers' returns a fair guide. It was said that from 33 to 49 per of the applicants for the King's shilling in Lanca- had to be rejected on physical grounds He thought was simply because the pay in the army was not gh to attract physically sound and capable men. would-be recruits were too often the men who ped up the corner of a public-house, and offered selves when they found their funds had run out.

He had been interested in reading a series of articles, a socialistic point of view, on the degeneracy of the ing classes, by Mr. Mills, in the paper called the *ion.* As regarded the British workman, he (the ker) had watched him for many years, and although id not see the fine navvies who were in evidence n railways were being carried out throughout the dom, yet he thought even now artizans and urers were not so degenerate as was represented.

Brought into the region of practical politics the rden City" might well become more than a fine

ideal, and in the hope that this would be the case, he was ready to join in wishing it every success.

Mr. H. D. PEARSALL (Visitor) desired to say first that it was quite a mistake to suppose the directors were anxious to avoid criticism—in point of fact they came there for the purpose of inviting criticism, and were anxious for it. The only thing he understood Mr. Eve to deprecate was indulging in vague generalities. What he asked the meeting to do was to come to the point and definitely give the benefit of their knowledge and experience on practical points. He must find fault with Mr. Scoble for the way in which he had not done that. He had before him a list of that speaker's objections, and, with one exception only, he found them all to be the vaguest generalities. It was said that difficulties had been underestimated. Of course they were. Was any great enterprise ever started in which the difficulties were not at first underestimated, and would any great enterprise ever have been carried out if the promoters have been able to gauge all the difficulties before hand? There never had been such a case, and he thought there never would be. Were the difficulties of beginning the railway system in England fully estimated? Probably not one-hundreth part of them were foreseen, but the result had been a magnificent success.

There was only one point to which Mr. Scoble referred that, he thought, called for a reply; this was his statement that the manufacturer, who was the predominant partner in this scheme, was hardly considered at all, and, he thought, did not stand to make any profit. He (Mr. Pearsall) held that to be an entire misconception. One must consider what kind of manufacturer it was of whom the promoters were thinking when they planned

scheme. He should be inclined, personally, to grant t a very large manufacturer, like Lever, would not ıd to gain very much by going to a site of this d. With a business of enormous size, employing ıy thousands of people, he had no particular need co-operation with other manufacturers. Having ctically unlimited capital at command he could uire any desired amount of land and spend as much ıe pleased on housing his workpeople and in gener- making the place absolutely efficient and getting way facilities and all such matters as light, heat, er and water supply or anything else needful to con- e to success. In such a case he readily granted that e was no great need for the co-operation of manu- urers. But that was not the position of the vast ority of the manufacturers of this country.

Such large concerns were but few, even in this ıtry of big firms. The majority of manufacturers employed but a small number of work-people, and command of only limited capital.

In such cases co-operation with other manufac- rs was of enormous advantage. As had been ed several times there was a steadily growing ten- cy for manufacturers to move out to the best sites, ving the great need there was, and the great profit manufacturers recognised was to be made by ng such a step. Mr. Scoble believed in that, and, thought, had laid emphasis on it in his Paper. ıufacturers of limited capital could not move out e.

How could a man employing 100 hands move into a rt? With the co-operation of other manufacturers ould do it, but by himself he could not.

He had consulted many manufacturers who wanted

to move, and all spoke of the almost absolute impossibility they found in doing it, but with the co-operation of others who were anxious to do the same thing, the difficulties were reduced enormously, and a manufacturer with moderate capital would be able to get the advantage of moving to the same full extent as if he were the employer of unlimited means like the Levers.

Then the question was mooted about the unearned increment, and Mr. Scoble said the ordinary man wanted the unearned increment. Such a man was essentially a land speculator

A wise manufacturer would reckon infinitely more on the success of his business, than on the small gain he might make by a rise in the value of his site.

In the particular case of a manufacturer establishing works in the Garden City, the value of the site of any land he took up there would increase very much faster by reason of other manufacturers coming on at the same time than if he located himself alone.

Supposing he only got one-half or one-quarter of the unearned increment in the Garden City, that would probably amount to a great deal more than getting the whole on his own account. Supposing he took up his own individual enterprise, and got the increment on the one acre on which his works stood; the houses of his workmen would take five acres to his one, and he would not get the unearned increment on those five acres, but the speculative builder, and he would have to pay it back in wages to his employees.

There was one other thing he should like to ask any speaker who might follow him, to suggest. What, in his opinion, would be the right and best method of assessing the value on the revaluation of sites. Supposing

adopted the system of giving perpetual leases, with ion of ground rent at the end of certain periods of . It had been suggested that the right way and best and truest way, and the one least open to dispute or possibility of unfairness, would be he valuation to be made by a professional sur-r, entirely independent of the Garden City Com-, and if the tenant did not accept it as a correct tion, his surveyor and the surveyor to the Garden should confer and see if they could agree, with the to appoint an umpire if they did not, and if not the President of the Surveyors' Institution, say, d be asked to appoint an umpire. He should like to a definite opinion on the value of that suggestion, bject being to fix a sum which should represent a valuation, without bias or unfairness one way or ther.

r. EBENEZER HOWARD (Visitor) said he would like y one word with reference to the comparison of the ne, as originally put forward in his book, with the ct which was now before the public.

hen he wrote his book, he was well aware, as a ous speaker had very truly and fairly said, that he not an engineer, able to put forward a complete ne, and indeed he there stated expressly that this d come later. He said, "It is not by any means essary—it is not, humanly speaking, possible—t the final scheme should be the work of one mind. will no doubt be the work of many minds, the minds engineers, of architects, of surveyors, of landscape deners, electricians," and so on.

hat he deprecated in Mr. Scoble's Paper was not his isms, but his suggestion that because many of the

details in his book were open to adverse criticism, therefore the main scheme was, in itself, not worth carrying out. That, he did not think, was quite logical. He had perhaps, as Mr. Madgen suggested, exaggerated a little the possibilities of the scheme. It might be so, although he did not himself admit it. When George Stephenson was giving evidence before a Parliamentary Committee on the proposed railways, he was advised on no account to say that his engine could draw trains at 60 miles an hour, lest the Committee would think he was a madman; that he should only talk of 20 miles, or at most 30 miles an hour. Possibly he (Mr. Howard) would have been wiser if he had not suggested that the scheme had such great possibilities in it, but if he had exercised such a discretion it might not, perhaps, have appealed to the public so strongly as it had done, and thus attracted so many practical men who would put it into better shape than he could hope to do.

To refer further to Mr. Scoble's criticisms with regard to railway facilities, he ventured to say it would be rather difficult to find a station about the same distance from London as Hitchin (32 miles) with a better service of fast trains.

Then Mr. Scoble suggested that, if they had unlimited capital, and had parliamentary powers which enabled them to pay dividends out of capital, the scheme might be successful. To pay dividends out of capital was simply a piece of machinery for getting back your own money, and there was a good deal of book-keeping and loss involved in this. Surely it would be much better for people not to expect a dividend out of capital, but to await the payment of dividends on any large enterprise until they could be honestly earned. He knew there were difficulties in this for those who had to invest

y for others and had to consider the question of
g immediate dividends even out of capital, but he
sted it was hardly the soundest method of carry-
n an industry.

ut would not the whole body of surveyors and
eers agree in this proposition—that, granted a
and suitable site, it would be found possible,
se of the simple fact that it was, as it were, a clean
on which to draw, to lay out a town far more
bly and effectively than was usual or possible in
which had grown up, so to say, anyhow?

e understood Mr. Madgen to say there were plenty
vns without starting another one, but was it quite
to have started the last town which was started
gland—he meant before Garden City, of course?
ould see nothing in the nature of things wrong in
ng to build a new town, and if surveyors and
eers agreed to that proposition, then a clean sheet
offer a splendid opportunity.

had been suggested that the manufacturer was
st person considered by the promoters. He ven-
to say that was entirely wrong, for he was the very
erson considered, and all the promoters' efforts had
based on their desire to get manufacturers to take
ctical interest in the movement; and he had no
that many would come forward in the near
e. They had hardly begun the work yet, and had
ly £85,000. It was insufficient for the ultimate
se; but they could not go to the public and ask
he large amount that was necessary until they
more definite scheme than at present. They would
ble to do that soon, and would then bring the
r before the British public more fully than had
to been done.

The PRESIDENT said all would join him in an expression of regret that the writer of this able Paper had not been present to read it or to hear it discussed; but he had some bold defenders of it as well as some severe critics. He thought he should do best to avoid taking either side. He could not, himself, hope to live to see this great estate attain full working order, but some of the younger men might if the difficulties, which it was easy to point out, were surmounted, and he hoped that the discussion would, at any rate, do some good in throwing light on the subject. A scheme of some kind was certainly wanted to alleviate the difficulties and dangers that the author had so freely exposed. Whether this scheme was to be *the* one or not, or whether, as was suggested by one of the speakers, it would be better to enlarge the towns already existing in the near neighbourhood of London, he could not tell. The Paper and the discussion which it elicited had shown clearly that the time had arrived for taking some practical steps to alleviate in some way the distress that now existed as a result of the overcrowding of our large towns.

The Meeting then adjourned.

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BRITISH TIMBER AND ITS USES.

By H. J. ELWES, F.R.S.

d at the Ordinary General Meeting of The Surveyors' Institution *on Monday, February 22nd,* 1904.

Albert Buck (President) in the Chair.

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is with great hesitation that I venture to say ing on this subject before a body of gentlemen of whom have much more experience in the h and use of British timber than I have.

ıt the subject is one which, in the future at least, is to acquire a much greater degree of importance it has at present, because though large supplies eign timber, grown on virgin soil in the forests of ica, Europe, India, and Australia, are brought by ıys and steamers to our ports at a cost which ents in most cases little—and in some nothing— than the cost of felling and transport, we have lant evidence from all those who know most of the t that these supplies are diminishing very rapidly, annot long continue to arrive at anything like the ıt prices.

y own qualifications to speak on the subject are y that, having during thirty-five years of travel in their native forests a great number of the

trees on which we now depend most largely, and having had considerable experience in growing some which I believe are likely to produce valuable timber in Great Britain, I think there is still much to be learnt on the subject.

As you, gentlemen, though no doubt principally occupied in matters of great economic importance, have immense influence in directing and advising landowners on the best means of treating large areas of land which seems now to be better adapted for planting than for farming, I have thought that it might be worth your while to hear some facts which do not seem to be generally known to landowners, land agents, and surveyors.

In the days when we relied upon our own timber for nearly all local uses, and when the production of oak timber for house and ship-building, ash and elm for waggon building, pit wood for mines, and underwood for hop poles, fencing, hurdles, and firewood, was the main idea which governed landowners, a system of managing woodlands was developed, which, at the time, was no doubt the best from an economic point of view. At that time local builders, carpenters, coach builders, and furniture makers were ready buyers of almost all kinds of timber and kept stocks of timber to season properly, because they could not carry on their trades without it. Much of this timber was no doubt more difficult and expensive to select and to work up than foreign timber, because it was often (perhaps I may say usually) grown on land which our ancestors had not thought good enough to cultivate. But even on good land one cannot expect hedgerow timber, or timber grown in open woods, where underwood was a regular crop giving a certain annual return of greater importance than the timber, to be as clean and straight and suitable

building purposes as timber grown in dense forests great extent, from which only selected trees are orted. In consequence, architects have in many cases ulated that only foreign timber should be used, and trades such as the High Wycombe furniture factories, ch had been founded and developed on purely local olies, have gradually taken to foreign timber to a t extent, and, in consequence, the demand for most ls of home-grown timber, especially when of small has fallen off, and underwood is in many districts saleable at a price which leaves little or nothing for rent of the land when all expenses are paid.

Iron fencing, hurdles, and wire netting have largely rseded wood. Open hearths suited for burning ots have almost disappeared from our modern urers' cottages, and as long as coal remains cheap eat deal of wood is hardly worth carrying away, ss close to a market.

t the same time that this state of things was growing he preservation of game became much more general, shooting, which was formerly confined to landowners their friends, has become so popular a sport that it w much easier and more profitable to let inferior for sporting than for agricultural purposes. The ekeeper on many estates is a more important person the woodman or forester, and rabbits have become nany districts a perfect curse to would-be tree ters.

In the face of these facts we are told by gentlemen se knowledge of practical estate management is often much less than their knowledge of scientific forestry all our old practices are wrong, and that we ought mitate more closely the systems adopted in France Germany, where not only are the economic condi-

tions totally different from our own, but the conditions of soil, climate, labour supply, and markets also very unlike those which prevail here.

Though I have endeavoured, by personal observation in the best managed forests of France, Germany, Norway, and Austria, and by reading works on scientific forestry, and consulting their authors, to learn what may be done to improve our methods of timber growing, I cannot say that I have learnt much that can be profitably applied to such conditions of soil, climate, and society as I have personally had to deal with, and though I am as anxious as anyone can be to improve my own woods and to raise plantations which may produce better timber than the old ones, I find the greatest difficulties at every step, and am obliged, as every one will be, to feel my way gradually and gain experience by slow degrees and often at great cost.

One of the great difficulties one has to contend with is to find men at a reasonable rate of salary who are really competent to carry out a plan of operations which, after long and careful consideration, has been determined on as most suitable for any particular district. Such men are more common in Scotland than in England, and the landowners who have a sufficient area of woodlands to justify their employment are able to pay them suitable salaries.

But owners of small estates possessing only a few hundred acres of woods and plantations are forced to put up with woodmen who, though very well up in their local customs, are neither educated nor capable of reforming practices which have become economically obsolete. And even if they are, the prejudice and poverty of many landowners, and their unwillingness to deprive themselves of certain, though diminishing, sources

income, in the hope of a future return at a very ant date, which if reaped at all will under the idly changing conditions of rural England, often be ped by unborn successors, are a very great hindrance he efforts of modern foresters to improve English ber.

A very serious drawback to the use of English ber is caused by the rates charged by railway panies for carriage, which, in many cases, are much ier than those charged on foreign timber, especially wood and deals.

It is the general opinion of English timber merchants, this opinion has been very well expressed in the ence given by Mr. C. Hopton, Vice-President of the ber Trade Federation of the United Kingdom, before last Committee on British Forestry, held in 1902, both the system of measuring adopted by the way companies, and the rates charged, operate very irly on British timber. Many instances can be d to prove that, though in the case of large chants, special rates are given in order to obtain ic that would not be possible at ordinary rates, yet he case of small lots for short distances the usual s are prohibitive. As the railway companies are, in y cases, the best customers of the timber merchants are often unwilling to fight them on the question ates. The loss, therefore, falls entirely on the land- er, because the price offered by the merchant must ys be based on the cost of getting the timber to ket, and thus it seems to me that united action on part of landowners and agents is very necessary.

Another point on which I must touch is the question ates and taxes. This also was carefully gone into he Committee on Forestry, and the evidence given

is well worth the attention of landowners and valuers. It seems an extraordinary thing that the landed interest, which is so largely represented in the House of Commons, should be so unorganised that the gross unfairness of the present system of taxing and rating woodlands should have been allowed to grow up. It seems as if landowning Members of Parliament sat to redress everyones grievances but their own.

Question 3164, put to Mr. Minchin of the Inland Revenue Department by Mr. Munro-Ferguson, M.P., the Chairman of the Committee, is a case in point. I quote it as follows: "I will put it another way. The land in "a county where land valuation stood high, under "wood, would only bear death duty on its unimproved "capital value, and no duty would be levied on the "timber, whereas in a poor county you would not only "rate the woodland area at its unimproved pastoral "value, but you would rate the wood which is grown "on it for death duty? (Answer) Yes, that is so."

This, however, applies only to the practice adopted in Scotland.

The rating of woodland for local expenditure is also most unfair in the case of new plantations, and must tend to check the extension of our woodlands if not redressed. I have just planted over 100 acres at a cost of £6 10*s.* an acre, plus the cost of fencing, and as, in order to keep out rabbits from adjoining land, I have had to wire it all round, I put the total cost at not less than £7 10*s.* an acre. For 20 years certainty, and probably for 30 years, this land will produce no income whatever, and yet I shall have to pay rates and income tax on an estimated value of about 5*s.* per acre during the whole of that time, whilst my son will have to pay a death duty on a valuation of which he will not live to

ise more than a very small part, if any. The subject
o large and much too complicated to go into details
, but it is one which, as well as that of railway rates,
rves the most careful attention of landowners and
r agents.

The action of some county councils in attempting to
e timber merchants liable for damage done to roads
what is called "extraordinary traffic," in removing
er from land which has always paid its quota of
s without perhaps contributing any traffic for a long
od of years, must, if continued, be very prejudicial
he interests of owners of timber and seems to me
short-sighted and unfair.

There is a very great deal of the speculative element
l operations of forestry or wood management in a
try like this, and I am not at all sure that the
ey I have invested in planting land which no longer
to plough, would not have been better invested in
ols at present prices.

But the pleasure of planting and of seeing trees
is one which increases with age and experience, and
h never fails even when one is no longer able to
y other sports and amusements of country life, so that
e hope of inducing agents and landowners to turn
some portions at least of their land to the unchecked
ations of timber culture, I venture to suggest some
s which may be new to you.

We have in England a great variety of soils and
ates capable of growing to a very large size many
ds of trees which are not indigenous. Some of these,
n planted with due knowledge of their requirements,
with the object of producing timber, rather than for
amental purposes, will, I believe, be more profitable
the common timber trees which you all know, and

about which I need say comparatively little. Since I have lately been paying special attention to English trees, with the object of bringing the immense amount of scattered and more or less imperfect knowledge which exists about them, into a complete work which will be useful to landowners and foresters as well as to scientific men, I have been much impressed by the general unwillingness of timber merchants to recognise as valuable timber some of the trees which I am going to talk about, but it is no use our planting them as forest trees if we cannot educate the public to believe in their value by showing them in use, and so create a market for them.

I have collected a number of specimens, some of which I show to-night, to give you an idea of the immense variety of trees which grow to timber size in this country, and of the nature of their wood.

This collection is made under great disadvantages, and the specimens by no means represent good examples of many of the trees, because they are often taken, in default of better, from trees which were grown singly and therefore full of branches, and from trees which were more or less decayed or had been blown down.

The amount of waste which goes on on all estates by allowing trees to grow too far apart, by allowing them to stand long after they are mature, and by planting them without regard to their individual requirements as regards soil and position, is very great.

Many landowners, their heirs, their wives, and relations generally consider it almost a crime to cut a tree until it is half dead, and the fate of many of the most valuable trees is to die standing or to be blown down, eventually finding their way to the bothy fire or the log heap.

A friend of mine recently panelled a room, at a cost

£700, with so-called Italian walnut, when he could bably have found a tree on his own estate that would e done the work equally well at a quarter the cost.

I have seen houses where thousands have been shed on internal decoration with foreign wood, not ood as could be done with timber off the estate, if the knowledge to select it existed and time were wed to season it properly.

Where can modern panelling be seen equal to what ancestors did with their own oak, of which the ng room at Gilling Castle, near York, is one of the t beautiful examples I know? Yet we see Austrian American oak, pitch pine, and other inferior, igh perhaps not cheaper, woods commonly used at present time.

will now make some remarks on the various species nost importance, which the specimens I have brought together with a few lantern slides, will, I hope, ble you to understand.

Of the *Oak* I need say little, because you all know it is one of the most valuable trees we have, though which takes longest in coming to maturity. Its ie has fallen owing to large importations from tria, which have now superseded the so-called Riga , which in its turn took the place of English oak he last century, for high-class flooring, wainscotting, panelling, and of which the accessible supplies ear to be nearly exhausted.

American oak is also now being used to a great extent account of its lower price, though believed by those have most experience to be inferior in strength and ability for railway waggon building.

But we have in parts of England a form of oak, wn in the trade as brown oak, the value of which,

for internal house decoration, has recently lead to a great increase in its price, owing to a demand from North America, to which country most of the best of it goes at very high prices.

Brown oak is found in many parts of England, but is commonest and most sought for in the North and East Midlands. It seems to be usually the result of incipient decay, though young trees are occasionally found which are brown from their youth. This change of colour in the wood sometimes commences at the top and goes downwards, but more commonly at the base and goes upwards. When the tree is felled before the timber has become rotten at heart it can be used with a beautiful effect; being much superior in colour to that of the common wood for panelling or cabinet making. The latter is often made darker by fuming or staining, but does not have the same rich colour as good brown oak, as the specimens I show will, I think, prove.

More often the trees, when felled, are found partially hollow, and in such cases the soundest parts of them are cut into thick veneers or plating, because, owing to the liability of this wood to warp, crack, and twist, it is very expensive and difficult to use except in the form of veneer, and has to be laid on stronger and more reliable wood as a backing, as in the example I show. When it is sound enough and straight enough in the grain to be sawn or cleft, so as to show the figure, silver grain, or flower as it is sometimes called, to the best advantage, it may be worth as much as 10*s*. or more per foot in the log, but the risk and waste in converting it is generally very great.

What is called *pollard oak* is another form of timber produced by knarled and twisted burrs or swellings on the tree, and may be white or brown as in the table

ch I show, which was made by a village carpenter of pieces of pollard oak.

In other cases when the tree is covered or entirely posed of abortive buds, it has more the appearance irdseye maple than of oak. The example exhibited om a tree which was about 10 feet in girth and the e in height, and never had any branches except ll sprays.

The *Turkey oak* is a species, usually considered of e or no value, because its timber will not stand osure to the weather, and is more liable to be m-eaten than common oak when used indoors; the figure of the wood when properly cut, as on plank I show, taken from a tree about 100 years which I bought in the town of Exeter for sixpence ot, gives it a value for internal work far beyond current price, and I have a table made from it years ago which is now as sound and perfect as the the tree was cut to make the coffin of the man who ted it.

Elm is another timber of which you know the value uses as well as I do, but there is one point about which I have never been able to understand, and is why *wych elm,* which in Scotland and the north England is preferred by wheelwrights to English elm account of its strength and durability, is, in the south, at a much lower price—in my own district not e than two-thirds as much as the price of English It is one of the fastest, if not the fastest wing hard wood we have, and on poor soils, where glish elm grows slowly, comes to be a very large It has, however, a tendency to form large nches, which, if not pruned when young, often split trunk before maturity, and therefore the tree should

not be planted alone but drawn up among other timber in order to prevent this great fault.

Ash is the tree which, in the opinion of most timber merchants, is the most profitable hard wood to plant wherever the soil suits it. The timber is now, when of good quality, worth more than that of oak. It grows nearly twice as fast. It is less exposed to foreign competition than any timber we have. It seeds itself more readily than any other English hardwood, except sycamore, and is worth money at a smaller and younger stage than any other hardwood, except chestnut. It is a tree for which no substitute has yet been found, and one of the hardiest trees and less subject to disease or insect attacks than most, though in low lying and damp spots it suffers from late spring frosts.

Beech is another timber tree, so well known that I need hardly mention it, except as regards the fact,—long ago recognised by German and French foresters, but as yet not generally understood in England—that it is the most valuable fertilizer of poor soils on the chalk and limestone that we posess. If not allowed to overtop and shade other trees it is the best neighbour they can have, because it keeps down grass, weeds, and briars, which are so detrimental to forest growth. Whenever larch are subject to disease, beech should be planted with them in the proportion of at least one beech to two larch. The effect of this mixture has been that on land on my own estate, where larch is now badly diseased since 1879, it grows to a very much larger size, and the photograph I show proves that even in low damp situations, where its roots are actually in the water, larch may be produced of immense height, which remain healthy and sound at over 100 years of age. The average value of the trees in this plantation is now £3 to £4

nding, whereas on similar soil where larch is planted a pure crop they cease to grow at 40 to 60 years old, hen they may probably not be worth more than from to 10*s.* each.

We have many other hard woods of minor impor-nce about which the time at my disposal to night does t allow me to say much.

Of these one of the most important is *Sycamore,* which hen of large size is now more sought after and is more luable than almost any other timber, though it seems ther doubtful whether the demand is sufficiently sured in the future to justify its being largely anted.

Walnut, which though its timber is not here often ual in beauty to that grown in the hotter and dryer mates of which it is a native, is worth a great deal more an it usually realises when sold standing, and which on ony, calcareous soils attains a great size. In the rmer and dryer parts of England I should not sitate to plant it for timber, and in Norfolk I have en seen it self-seeded in Lord Leicester's woods.

It is a tree which requires time (at least 100 to 150 ars) to produce timber of the best quality, as the sap-ood is thick and comparatively useless and is somewhat ble to become wormeaten.

Hornbeam is a tree which rarely grows to perfection England and which, if wanted for special purposes for hich a very hard wood is required, can probably be ported more cheaply from France than it can be own here.

Cherry is a tree the value of which as timber is not cognised in the trade, though formerly much more ed for furniture and cabinet making.

It grows fast, straight, and clean, on poor calcareous

soils that will not grow many trees well. It attains a much larger size than is usually known, especially when drawn up by beech. I have seen trees in Surrey containing over 100 feet of timber, and have felled one on my own land 8 feet in girth. As it is not a long-lived tree, and is apt to go rotten at heart without any external symptoms of decay, it should not be allowed to stand over 70 to 80 years of age.

Black Poplar is another tree eminently suitable for growing in damp and water-logged situations, where it attains a great size in a short time, and though not a timber of much intrinsic value, and therefore not to be planted for profit far from a market, may bring a large return in a short time.

I lately felled 30 black poplars not over 48 to 50 years old, which averaged about 100 cubic feet and made £3 each standing, though 10 miles from the town where they went for conversion into railway brake blocks. What other tree will do this in the time on land rated at 5*s.* per acre?

Willow, *Birch*, and *Alder* are all trees of secondary value to be grown for timber only in districts where a market is assured, but for ornament almost everywhere in such situations as are suitable to them.

I may say, however, of Birch, that when the time comes—and it is not as far distant as many people assume—that coal becomes too scarce and dear to be wasted as we now waste it in open fireplaces, and when we have to take to close brick stoves, such as are used in Northern and Central Europe, to heat our houses, such timber as birch and beech must have a value as firewood which they do not now possess. These stoves I have proved in my own house to be the most economical and comfortable form of stove in existence for burning

od which is not good enough to burn on an open rth.

Birch is a tree which will grow on the very poorest and st barren sand, and on heather-clad hills to a greater vation than any other tree. It has a bark which, ugh not utilised in this country, is of great value tanning and for roofing houses. It is also a good ilizer of the soil when grown thickly, and a good ghbour to other trees, and one which seeds itself pro-ely under many conditions of soil and climate.

The *Lime* is a tree which at one time was much more ued both for timber and ornament than at present. annot exactly make out why its wood has fallen so ch in price, for though American lime wood (known Basswood) is to some extent competing with it, yet it valuable qualities which no other possesses to the e degree, and it will grow to a great size, even on r soil.

From what I have observed I believe that, if wanted timber, it is best grown from seed and not from ers, because the finest and oldest trees in the country ch have the appearance of seedlings, do not throw anything like the quantity of small spray which so en disfigures the limes now usually planted. It makes ellent underwood, and in some parts of the West llands there are stools of immense age, which spread some distance and are less injured by rabbits than st kinds of underwood.

We will now turn to the Conifers, of which I may briefly that *Larch* is worth all the rest put together. fortunately, we cannot now grow Larch as we used do, partly, in my opinion, because the necessary care not taken to select seed from healthy vigorous trees wing in a climate where the disease is not prevalent,

as it is now in most parts of England and Scotland and Ireland, and because the seed is not allowed to remain on the tree till thoroughly ripe. Also, partly because people seem to think that Larch will grow any where and may be planted anyhow.

Time will not serve me to-night to discuss a question which I look upon as of greater importance to British forestry than all other questions. Notwithstanding a great deal of investigation, writing, and discussion, neither scientific men nor practical foresters are yet agreed as to the causes of the great increase in the spread of the parasitic fungus known as Peziza Wilkommi, and commonly called Larch canker. I will only say of the timber that it is always saleable, and always likely to be wanted both in small and large sizes, and that the only source of foreign supplies which is likely to compete with our own is in the Larch forests of the White Sea and Petchora districts in North Russia.

At present, as I am told by gentlemen of great experience in the timber trade, the price which this realises in England does not allow a large importation of Russian Larch timber, for though its durability and strength should make it far more valuable than Scots Pine and Spruce, its hardness causes the ordinary builder to prefer them.

Scots Pine is a tree most suitable for sandy soils in the south of England, and for peaty soils in the north. Where it can be grown to a large size, and close enough to keep it clean and straight, it is a valuable tree, but its strength depends on the amount of red heart-wood, which time alone will produce, and though on my own estate I have found that trees of 100 years old, such as those shown in the photograph on the screen, are, for

ng, worth much more on the estate than I can sell
ı for, yet I should not think of planting Scots Pine
ngland where I could expect a better tree to grow
And I think that for planting in the south of
and it should be grown from English and not from
ch or German seed.*

pruce is the worst of all our common conifers from
nber point of view, and, notwithstanding what
ers tell us, can very seldom be grown thick enough
eep it free from the branches which make English
n Spruce usually so knotty and weak. It is a
ble nurse for hardwoods where the soil is moist
gh, as it forms good shelter and a dense cover to
round, and being very cheap and easy to transplant,
ch more planted than its value justifies.

must be remembered that timber which is only
ı 6*d.* or 8*d.* a foot where it is used cannot be worth
standing, unless close to a market.

lver fir is a timber which is much more thought of
ermany than in England. I know not why, and
not enough experience to verify what I have been
by some proprietors, namely, that it is, when clean
f good size, worth much more to convert and use
e estate than it will sell for. It requires a fairly
and open soil to grow well, and only on such
be grown thick enough to clean itself from
hes. Though in some localities it grows freely
self-sown seed, its growth is very slow for the first
twelve years. Though it bears dense shade better
nost trees, it does not come away quickly enough to

e specimens shown at the meeting prove clearly how very much
ber varies in quality according to the soil and climate. That from
th of Norway has not made as much wood in ten years as that from
has in one.

justify the cost of using it for underplanting thin woods, for which purpose it is much used in Germany.

Douglas fir is the fastest growing conifer we have, and, on deep sandy soil, where not exposed to wind, attains a marvellous size in a very short time. Wonderful accounts have recently been published of the enormous quantity of timber produced on an acre of this tree in Perthshire. The value of its timber, when imported, is well known, but it must be remembered that this comes from trees of great size and age, and I doubt whether it would pay as a crop to fell at less than 100 to 150 years old, which is too long for most people to contemplate.*

I should also most strongly warn intending planters of Douglas fir to be quite sure that they get the variety which grows on the Pacific Coast, and not the one from the Rocky Mountains of Colorado, because however ornamental and hardy the latter may be, its growth is not—as has been proved on Dr. Watney's estate in Berkshire—more than half as fast as that of the so-called Oregon variety.

The only other exotic conifer which has been much planted as a timber tree in England until recently, is the *White Pine* of the Northern States and Canada, *Pinus Strobus*, usually known in Europe as *Weymouth Pine*.

This tree occasionally grows to a great size in England. I have a record of one blown down on the Earl of Ducie's Estate at Tortworth, which contained nearly 300 feet of timber, but I cannot recommend it as a forest tree, because it is more subject to insect attacks on many soils than most conifers, and requires unusually

* The difference between the close firm grain of the imported timber which I exhibit and that grown in England is most striking.

deep moist soil to bring it to a profitable size and
ness of trunk.

e *Cedar of Lebanon* is too well known to mention
; in connection with its timber, which is very
ential, though too soft for most purposes. I have
: seen a drawing room in London entirely floored
nelled with the wood of one tree blown down on
ner's lawn, and the delicate pink colour, combined
he sweet smell, made it a most successful experi-
What is called Cedar in the trade is either the
Indian *Cedrela odorata*, or the so-called Pencil
Juniperus virginiana, of which the latter,
it is quite hardy in England, grows too slowly,
oes not become large enough to give it any
rcial value.

ow come to some trees which, though not generally
upon as forest trees, and as yet seldom planted,
for ornament, will, I believe, if tried with a due
dge of their peculiarities and requirements in the
soil, climate, and treatment, be as valuable, if not
, than some of those of which I have already

wise man will plant them largely for timber until
vs all that he can learn about them, and until he
n that they will grow on similar soil and in a
climate to his own. His successors will also have
the risk of their not finding a market for their
equal to their actual value, and it may prove that
them will develop defects with age which we
now foresee.

considering what is spent on ornamental planting
nd the great interest which the introduction of
es gives to our walks and rides (especially to a
or who has raised the trees from seeds collected

by himself, relations, and friends, during their travels) I have no hesitation in saying that the money spent in judicious trials of this nature will be well laid out.

One thing is important, and that is that a record shall be kept in such a way, and in such a place, that it cannot be lost, of the origin of the trees so planted; because it too often happens that, even in a generation or two, all record is lost of the name and country of trees of great interest and importance, and I have now sometimes the greatest difficulty in identifying trees of historical interest.

I must not, however, any longer allow my love of trees to lead me into digressions of this sort, but will proceed to consider what kinds of trees may be tried with confidence of good results.

Of hard woods there are not many, and though most of them have been introduced for a long period, the rage for planting conifers which sprung up about 1830, and which has not yet died out, has led to their being almost forgotten by modern planters. The first and the most valuable from a timber point of view is *Juglans nigra*, the *Black Walnut* of the Eastern United States of Canada.

Though this tree does not come to a large size, except on good deep soil in the warmer and dryer parts of England, yet I have seen trees in Kent, not over 100 years old, which contain about 100 cubic feet of timber, and this, as will be seen by the plank I produce, is fully equal in colour to that of the American timber which is now becoming very scarce as large logs, and which is worth from 5*s*. to 7*s*. a foot, and likely to become dearer.

Mr. Cragg has just put into my hands a specimen of this wood grown in Surrey, which came from a tree

feet high and over 9 feet in girth. I did not see other tree in its vicinity approaching it in size, and s perfectly sound to the heart.

nother is the *American ash*, of which there are al species. I have lately been making experiments these, which, in their own country, are of equal value he same purposes as English ash. They have the ntage that their seed germinates the year after it e, instead of lying a year in the ground, and a bed nerican ash, which I sowed in June, 1901, escaped everest spring frost, which cut off 90 per cent. of English ash seedlings in the same nursery. This ncy to late growth has also been found very ntageous in Germany, where the American ash has used for some years. It grows with great rapidity, t Kew, on poor dry soil, which would not grow lass English ash, it is one of the most vigorous, y, and promising timber trees in the gardens. nber is used (exclusively I am told) for the oars British navy, and, if cut young enough, I believe be well worth trial. There are three species now tivation—

Americana, the white ash, which is probably the n dry soil at least.

Viridis, a more western tree, a variety of *F. Pen-ica*, whose value remains to be proved, and which States is not thought equal as a timber tree to ash.

Oregona, the ash of the Pacific coast, which I have t Sir Charles Strickland's, in Yorkshire, planted larch, with which it keeps pace in growth, and ng seed from which I have raised plants.

e *Tulip tree, Liriodendron Tulipifera*, is one of ost beautiful flowering trees we have, and comes

to a great size on deep, moist, heavy soil. Its timber is now very largely used for furniture and cabinet making under the name of "white wood" or "canary wood," and is known as "yellow poplar" in the United States.

Its great defect as a forest tree is the difficulty of establishing it when young, as it transplants badly and grows slowly at first. Though quite hardy I should only recommend it for the warmer parts of England, as, like most American trees, it likes hotter summers than we usually get here.

The *Plane tree* also produces excellent timber, which is very ornamental when taken from trees of some size and age, as the specimen I show proves. I cannot say that as yet it has much commercial value in England, because there is no supply, but in France and America it is largely used for inside work, and the better parts are cut into veneer for decorative purposes.

Ailanthus glandulosa. A Chinese species, known as "tree of heaven," is another tree which grows to a large size, ripens seed in England, and produces excellent timber; little known at present, but which an American friend assures me makes excellent furniture. It is a very fast grower but liable to be cut by spring frosts, and, when planted singly, to produce suckers.

Sorbus domestica. A rare tree known as the "service" tree, though quite distinct from the true service, *Pyrus torminalis,* produces, at least in some cases, the most beautifully waved timber I have ever seen of native growth. It is quite unknown to English timber merchants, but highly valued in France, where it is grown in some districts as a fruit tree, and I am told by Lady Coventry that its fruit makes very nice jam in England. It once grew wild in Worcestershire, but is now, I believe, extinct, except as a planted tree. The plank which I

came from a large tree grown in Surrey. The is known in France as "Cormier," and can be got the French, if not from the English, nurseries.

among the conifers not generally treated as forest I will mention the following:

huja gigantea, the Red Cypress of British Columbia, hich I show a plank cut from a tree in Devon- (which, though a poor sample, is the best I can get esent), also a specimen lent me by Mr. Turner, the t General for British Columbia, which shows its character. This tree grows rapidly on almost all of soil, but is specially suited to damp climates wet bottoms, where larch will not grow. I have ured trees over 70 feet high, and 6 feet in at 50 years of age. I have never seen it injured rost, insect attacks, or disease in any part ngland, though it is said to be subject to a id disease in some parts of Scotland. It stands planting and dense shade. It is extremely easy ise from seed, and I have raised thousands from growing at 700 feet elevation on the Cotswold It transplants readily in spring or autumn. Its r is so durable that a tree fallen in the forest, on unk of which a hemlock spruce has grown for over ears, remains sound, as shown by the photograph ibit. It makes excellent straight-grained shingles oards, which are preferred to any other wood for or work in British Columbia, and take a beautiful . It is admirably suited for telegraph poles and posts.

drus atlantica. The Algerian cedar has already d its ability to grow on various soils in England, s perfectly hardy in all parts of England. It much more erect habit, and is far less branchy

and a faster grower that the Cedar of Lebanon. It ripens seeds in good seasons in England, and can be procured at a cheap rate from French nurseries. It is not so easy to transplant as some conifers, but much easier than the Corsican pine. The photo I show of the Dropmore Cedar Avenue gives a good idea of its beauty, and another, taken on a Berkshire common, shows it as a forest tree. It must not be closely crowded when young and dislikes wet situations or heavy clay, but grows well on limestone soils.

Its timber is not yet proved in England, but from the specimen I show appears fully equal to that of the Cedar of Lebanon.

Cupressus macrocarpa. An extremely fast growing and beautiful species, not perhaps hardy enough for the colder parts of the country, but a most valuable tree for the south and west of England, especially near the sea. In Sussex, on poor soil, I have seen trees 80 feet high and 12 feet in girth at about 50 years old. It ripens seed freely and is easy to raise, attaining 3 feet in height at 3 years old, whilst silver firs, under similar conditions, were only 3 inches.

Its bushy habit is, except for the purpose of shelter, its worst fault, but it varies much in this respect, and some trees, as at Beauport, in Sussex, have much less tendency to grow branches than those sold by nurserymen, which are often raised from cuttings.

The quality of its timber, though not yet proved in England, seems, from the specimen I show, which came from a tree blown down last March at Dublin to be superior to spruce or silver fir grown under similar conditions. It transplants without difficulty in spring or autumn.

Cupressus Nutkatensis, often incorrectly called by

rymen *Thujopsis borealis*, is another tree from the region of British Columbia, which on my poor one soil grows very freely, though not so fast as *gigantea.*

is often mistaken for *Cupressus Lawsoniana*, from it is easily distinguished by its fruits, which have short spines, and take two years to ripen. I have et succeeded in raising it in quantity or getting it easonable price from nurseries, where it is usually gated by cuttings. Its timber is said by Sargent one of the very best on the north-west coast, but I not yet got a large enough specimen to judge from, se it never seems to die or blow down in England. l stand close planting and shade and seems perfectly and free from insect or fungoid attacks wherever seen it.

the *Corsican pine* I need say little. It has ighly proved its good qualities in almost all of England as a forest tree, especially on dry lime-soils. Its greatest defect is the difficulty of trans-ng it, on account of its bad root system when . I have been most successful by buying in March ear seedlings from French nurseries grown in a rich sandy soil and planting them out in April my own nursery. When planted in the autumn ut special precautions, 50 to 90 per cent. often die. nber, when it is grown thickly enough to suppress hes without weakening the tree, is very good, and more resinous is said to be more durable than of many conifers.

ne specimen shown came from the Highclere estate, it is highly thought of.

here are many other trees which I could mention timber in their own countries is of high repute,

and which are perfectly hardy in England; but either from their liability to suffer from spring frost, as *Pterocarya Caucasica*, the Caucasian hornbeam, or from their tendency to grow branches rather than clean trunks as *Zelkowa Keaki*, the Japanese elm, or from the difficulty of their propagation and transplantation, as the *Hickories*, or from their requiring a soil and climate which is better than the average, cannot be recommended for trial on a large scale.

And there are others already proved to be able to endure the worst vicissitudes of the English climate and to grow on the worst soils, such as the *Austrian pine*, whose timber is so coarse that though largely planted it is only fit for use where nothing better will grow. Others again, like *Sequoia sempervirens*, the Californian red wood, which looks as though it would outgrow any other tree in Great Britain, have yet to prove the value of their timber here, however fine it may be in native trees of 200 to 300 years old. In such English grown specimens as I have seen it is too soft to be of much value at present, though of a very pretty colour.

In dealing with so great a subject I have had to touch very lightly upon, or to pass by, many points of interest, but shall be happy to answer to the best of my power any questions arising out of my Paper, which I hope may lead to a full discussion from those here present, some of whom have a longer, wider, and more practical knowledge of British timber than I have.

I may add that as I am now engaged on a work on the trees which attain timber size in Great Britain and Ireland, in which I have the assistance of Dr. Henry, of Kew. We shall be glad to receive and name, now or later, any specimens of wood or trees which in the course of your business and pleasure you may meet with and think worthy of notice.

r. R. ANDERSON (Fellow) said that, as one of the ry members specially interested in the subject restry it gave him very great pleasure to pro- a hearty vote of thanks to Mr. Elwes for his sting and practical Paper. He thought it was unusual or, possibly, unique, for a man of Mr. ' distinction as a botanist and entomologist, whose s had extended all over the globe, to be able to in such a practical way with a subject of the st interest to English land agents, in a Paper which form a most useful and substantial addition to *ransactions* of the Institution.

ention has been made in the Paper of the question lway rates, the amounts and incidence of which he ately occasion to look into pretty closely, and , he was convinced, bore very hardly on timber ers.

was almost impossible to make head or tail of some methods of the railway companies. In one par- r instance which came under his notice, a timber ant had bought timber in South Wales and, wishing ng it to his mills in Gloucestershire, found himself onted with a rate which seemed an exceedingly and unreasonable one. Having ascertained the or foreign timber he eventually brought his papers n (Mr. Anderson), and after working out the figures, had come to the conclusion that the product of a -grown plantation in Wales would pay something £20 an acre more than the same weight of foreign r would have paid, if carried between the same s. He thought this showed the necessity for a ugh investigation of the question of freight charges imber. The Paper, he thought, rather threw cold r on the continental foresters, who, at all events, had

taught us more than we ever knew before, and he thought it was owing to their teaching that we looked, as Mr. Elwes did, upon beech as the great fertiliser and improver of the soil of our forests and the quality of our timber.

There was one point with regard to larch to which he would refer. In his own part of the country larch timber had a fine red colour. He had seen it, when grown on the green sand, nearly white, as was also the case in Devonshire and in some parts of Derbyshire. The difference was, he presumed, due to the soil, and not to the particular variety of timber. He should very much like to hear what Mr. Elwes had to say upon that point.

Mr. A. R. Cragg (Visitor) said he fully agreed with Mr. Elwes that, if rightly managed, a well-grown cherry tree contained a great quantity of valuable timber, but if left standing too long it was apt to go rotten at the heart.

He had sold at one time some twenty of these trees of much the same size, and apparently sound; but when they were felled, the majority were found to be rotten.

With regard to the Paper itself, he did not pretend to be able to criticise it, even if he wished to do so, but he might express the relief he felt at finding that Mr. Elwes was not unduly severe on the management of English woods as compared with those on the Continent, and showed no desire to insist that the continental system of management was altogether applicable to the treatment of English woods, for he thought all land agents were agreed that it was not so in a great many cases. It could only be applied to a very small extent, because on almost every estate in the Kingdom the

r had some hobby which would interfere with any and fast system of management.

e was rather sorry that Mr. Elwes did not go a little er in his reference to the uneven growth of timber. d no doubt that all accustomed to observe plants he seed bed upwards, had noticed (say in the case of ry limes) that one plant would grow four times as in a year as its next neighbour, and when the plants placed out in woods, a similar diversity of growth bservable. He did not know whether Mr. Elwes ered this to be due to the extra vitality of some of ed, or to what reason; but it was certainly a most tant matter, and one that, to his mind, deserved lerable investigation.

ıt to go a little further into the question of planting woods. It was often noticed that one wood would rapidly for years and then suddenly become stunted, hat little, if any, further growth would afterwards place He should like to know whether this was due erioration of the soil, and if so, whether it would ssible to treat trees as agricultural and horticultural were so successfully treated, by the application of ial manures which would supply any deficiency in ant food which the soil lacked. He thought that e could determine, by careful investigation and iment, precisely what certain trees required and if leficiency in the soil could be supplied, it might be le to grow timber more quickly, and of better y, even on poor land. Hybridization had done a deal to effect an improvement in fruit trees as well corn and many other crops, and he should like to that Mr. Elwes, and other scientific authorities, had that point the attention which he was confident it ved. He had very great pleasure in seconding the

vote of thanks to Mr. Elwes for his most excellent and practical Paper.

Mr. DANIEL WATNEY (Past President) said that as the time at the disposal of the meeting that evening was certainly not sufficient for the adequate consideration of the many important points raised by Mr. Elwes in his admirable Paper, he wished to move the adjournment of the discussion to a future meeting.

The vote of thanks having been put and carried unanimously, the Meeting then adjourned.

295.
465.

THE LAND PURCHASES FOR THE W NAVAL BASE AT ROSYTH ON THE FIRTH OF FORTH.

By THOMAS BINNIE (Fellow).

d at the Ordinary General Meeting of THE SURVEYORS' INSTITUTION *held on Monday, 7th March*, 1904.

ALBERT BUCK (President) in the Chair.

the early months of last year (1903) the Admiralty d that a new naval base should be established upon rth shore of the Firth of Forth, a short distance rom the Forth Bridge. Along with Mr. J. Campbell y, factor and commissioner to Sir John Stirling ell of Pollok, I had the honour to be asked by the alty to advise them in connection with the acquisi- f the necessary land.

naval base in the Firth of Forth will be no new it will only be a return to the state of matters prevailed long ago. When Scotland had a navy own, it was in the Firth of Forth that the ships built, and the towns of the Fife coast appear to very largely supplied the gallant seamen who d them. The most notable man-of-war ever built tland was the "Great Michael," built by orders of James the Fourth in the year 1511. The ancient cler Pitscottie tells us that "it was a very monstrous ," that "it took so mekil timber that she wasted the woods in Fife, except Falkland Wood, be-

"sides the timber that came out of Norway." Many of the "shipwrights in Scotland wrought at her, and "wrights of other countries had their device at her, and "all wrought busily the space of a year." A good year's work this ship must have been, for she was 240 feet long, 36 feet broad within the walls, and the walls were of oak 10 feet thick. The chronicler goes on to relate that "she "cumbered all Scotland to get her to sea, and when she "was committed to sea under sail, she was counted to "the King to forty thousand pounds of expenses. She "had three hundred marines to govern her, six score "gunners to use her artillery, and one thousand men of "war. When this ship passed to sea, the King caused "shoot a cannon at her, but the cannon hurt her not." This great vessel appears to have been beyond the seamanship of the age, for we read of no historic career befitting such a miracle of shipbuilding. All that is known with certainty is that the "Great Michael" was ultimately sold to the King of France, with her arms and outfit, for forty thousand francs tournois.

Scotland in those days produced some seamen who should not be forgotten. Of these Sir Andrew Wood, of Largo in Fife, and Andrew Barton, both trusted commanders in the reign of James the Fourth, appear to have been the most noteworthy. Two of Sir Andrew Wood's exploits would not have been unworthy of Drake or Hawkins, or Frobisher, the Devonshire heroes of a somewhat later generation. Finding the Scottish Seas much infested by English pirates, Sir Andrew Wood, with his own two favourite vessels, the "Yellow Caravel" and the "Flower," attacked and captured five of them and brought ships and crews safely into the harbour of Leith. This having roused the indignation of the English monarch, a renowned commander named Stephen

was sent with a naval force to take Sir Andrew, to bring him dead or alive to England. The English ere long appeared in the Firth; Sir Andrew sallied to meet them, and after a running fight in the of Forth and north to the mouth of the Tay, this also was defeated, and the English vessels brought iumph into the harbour of Dundee. The chronicler tells us that "the King thanked Sir Andrew Wood atly and rewarded him richly. He also returned the Englishmen their ships and furnishings, because y had shown themselves so stout and hardie war-rs. So he sent them all back to the King of England let him understand that he had as manlie men in otland as he had in England, therefore he desired to send no more of his captains in time coming."

et us hope that among the fishing population of the hire coast there will be found many worthy descen- of Sir Andrew Wood and his gallant seamen, to the vessels of the Royal Navy, which in days to may be built in the new dockyard at Rosyth.

he site selected for the new naval base consisted of roperties:

1) The Barony of Rosyth, belonging to the Marquis of Linlithgow, and
2) The Estate of Castlandhill, belonging to R. N. H. Newton, Esq.

hese two properties extend in all to about 1,463 of which 1,178 acres are dry land, and 285 acres reshore, *i.e.* land covered by the sea at high water linary spring tides.

he eastern boundary of the lands is about one-third nile west from the Burgh of Inverkeithing. They d along the shore for fully two miles, and their est breadth backward is fully a mile and three-

quarters. Generally the lands are gently undulating, but at two points they rise to a height of fully 200 feet above sea level. On one of these points there is a small reservoir belonging to the local authority, which is likely to be greatly enlarged to supply the naval works; the other will be more particularly mentioned hereafter.

On a small promontory, which becomes an island at high tide, there stands the ancient Castle of Rosyth. The castle consists of a tower or keep, measuring 48 feet 6 inches by 41 feet 3 inches, and four stories in height. It seems to have been built during the second half of the fifteenth century, and at a somewhat later date a number of additional buildings of two stories were attached to its eastern and northern sides. The castle and barony of Rosyth belonged to a branch of the royal house of Stewart, in whose possession they remained until the family became extinct in the early years of the eighteenth century. Mary Queen of Scots resided at the castle for a time, shortly after her return from France in 1561; and the castle is also said to have been the birthplace of the mother or grandmother of Oliver Cromwell. The walls of the keep are almost entire, but the other buildings are ruinous.

In front of the property is St. Margaret's Hope, the well-known anchorage in which the vessels of the Royal Navy have usually lain when visiting the Forth. The name St. Margaret carries us far back in the history of Scotland. Saint Margaret, who gave her name to the roadstead, was an Anglo-Saxon Princess, who, with her brother, Edgar the Atheling, took refuge at the Scottish Court after the Norman Conquest. The Princess became the Queen of Malcolm Canmore, King of Scotland from 1047 to 1093. Dunfermline was a favourite place of residence with the King and Queen, and at her desire a

astery was founded there beside the Royal Palace, there both King and Queen were buried. The en had guest houses built on both sides of the Forth Queensferry for the use of pilgrims going to St. rews; and it was in this neighbourhood that she tised those acts of devotion and charity which led er becoming a canonised saint in the Romish Church. influence did much to refine the rude manners which ailed even in the Scottish Court of these days; and specially mentioned that it was owing to her that people of Scotland were first led to that respect for Lord's Day which has ever since distinguished them. A branch of the North British Railway passes in less than one hundred yards of the north ndary of the property bought, and the levels are that a siding can very easily be constructed to ect the naval works with the railway system of the le Kingdom. They will in this way also be brought touch with the great Fife coal fields, which are now g so rapidly developed. Some of the Fife coal is to be almost as good for steam purposes as that the celebrated coal fields of South Wales.

The total rental of the two properties bought unted to £1,623, and, as the purchase money unted to £122,500, one can hardly wonder that, both Parliament and out of it, where the facts of the case not fully known, great exception should have been to the price paid. In Parliament, the transaction described as a "huge job," an explanation of which supposed to be found in the fact that the seller of arger part of the land acquired was known to be a orter of the Government.

As is usual in the compulsory purchase of land, the rals in Rosyth were reserved by the seller. These

have now been purchased, and their value has been fixed by arbitration at £12,250 more. The total cost of all the land and minerals is thus £134,750.

While it is not needful to offer any defence of these purchases to any one fully conversant with the facts of the case, and competent to judge of them, I have thought that it would not be unbecoming if I asked my professional brethren to listen for a few minutes to a statement of the facts which led to the payment of what appears, on the face of it, to be an excessive price.

First then. The farm rents were all found to be very low.

The Marquis of Linlithgow appears to have made it a rule, in the management of his very extensive properties, to let his farms only to farmers of the very best class, and to fix rents which would allow his tenants a fair profit upon their farming operations. The lands generally are admirably cultivated and, so far as one can judge by appearance, the farmers are prosperous. The highest rent paid for any of the farms was about 38 shillings per acre, the lowest was 22 shillings per acre.

The best and largest farm is occupied by a most enterprising tenant. Since he entered upon possession of the farm, in 1894, he has introduced the cultivation of early potatoes, upon the plan so largely followed in Ayrshire and other districts in Scotland. This mode of cultivation very much resembles that which prevails in the Channel Islands. Recently he has planted 120 acres of potatoes each year. In this new departure he has been eminently successful. His clear profit, after paying all expenses, has for several years been equal to at least four times the rent he pays for his whole farm. In Ayrshire the rent of similar land is from £3 to £3 10s. per acre. In other parts of Scotland, as much as £5 per acre is got for such

On Rosyth, there are about 300 acres of land as good for potato growing as that highly rented but let at from 27*s.* to 38*s.* per acre.

n valuing the property no one would be justified in g the present rental as indicating the fair letting . There can be no doubt that, at the expiry of the nt leases, a very substantial increase of rent would tained.

may be mentioned, in passing, that, in Scotland, agricultural land is taken compulsorily the value nost always fixed at 30 years' purchase of the fair l, and to that 50 per cent. is added for compulsory When building land is taken compulsorily only r cent. is added to the price.

hroughout all the negotiations for the purchase of and at Rosyth these transactions were treated as in fact compulsory sales. Neither property was e market for sale, and the owners were unwilling s.

cond. The land had a certain feuing value.

here has been very little feuing upon either of the rties bought. But this resulted solely from the hat the Marquis of Linlithgow was unwilling to feu nd. Shortly before the land was bought by the ralty an offer had been received for about 4 acres d on which a gentleman intended to erect a house s own occupation. For that land he was prepared e a feu duty of £12 or £14 per acre, but he was ned that not less than £20 per acre would be ted. The negotiations hung fire in consequence of divergence of opinion, and in the meantime the ralty came upon the scene with their proposal to he whole estate, and the negotiation came to an About the same time, his lordship was asked by

another person to feu 10 acres of land, but in that case also nothing resulted, in consequence of the action of the Admiralty.

Third. In all the estimates of value offered by the critics of the Admiralty no value appears to have been placed upon the woods and woodlands which extend to more than 50 acres. The wood is of little commercial value, but the value of the woodlands is an important element in estimating the value of any property.

Fourth. On Castlandhill there is a charmingly situated small mansion house, which, with the offices and lodges, could not have been built for less than £7,000. This house, with a garden and pleasure ground, was let at a rent of only £68. The tenant was the resident sheriff of the district, and it was provided in the lease that he was only entitled to occupy the house on these terms so long as he continued to fill that office.

Fifth. Some parts of Castlandhill have been feued. The feus have chiefly been upon a part of the estate not purchased by the Admiralty; but two small parts of the land purchased have been feued, and the Admiralty got a conveyance to the annual feu duties received for these.

Sixth. Castlandhill, which gives its name to one of the estates bought, is a very steep-sided hill of whinstone, rising to a height of more than 200 feet. This whinstone is of very considerable value. A number of quarries are working in the immediate neighbourhood. One of these is upon a portion of this estate not bought by the Admiralty. A few years ago a rent of only £30 a year was got for that quarry, but a new tenant, who entered upon possession of the quarry in 1900, has developed it very rapidly, and now the annual rent or lordship amounts to not less than £500.

The owner of Castlandhill undertook that, before

ing any of his remaining rock to any other person the purpose of opening a sale quarry, he should offer it on the same terms to the tenant of the ting quarry. This obligation rests upon the iralty. But it is expressly declared that the iralty may quarry as much of the rock as they se for government works, for road-making, and for erection of dwelling-houses and other buildings on ernment lands. All restriction upon the use of the ceases in 30 years.

This is a most important consideration. The mass ock in Castlandhill is enormous—probably not less fifty millions of tons. The quality appears to be e as good as that found in the neighbouring quarries, which there is paid a lordship of 6*d.*, and even 9*d.* ton, for all kinds of dressed stone, and 4*d.* per ton marketable road metal. Castlandhill is close to the and a pier or jetty from which to ship the stone l very easily be constructed. Large quantities of stone quarried on the adjoining lands are shipped y week to England: indeed we were told that the iralty are very large customers of one of the ry-masters. They will now be able to supply them-s with all the road metal and whinstone sets which require in all the dockyards in Britain, if they e to do so. But the chief value of the rock to them be in connection with the construction of docks, and erection of buildings upon Rosyth. The possession ch a quantity of rock in the immediate neighbour- of the proposed dockyard will be of immense value he Admiralty and their contractors, and should tly reduce the cost of the proposed works.

On another part of the property purchased there more than 30 acres of sandstone rock, lying in

practically level beds and with very little cover. The Castle of Rosyth has been very largely built of this rock, and its quality may be judged of from the fact that on many of the stones in the castle the tool marks are still visible and the corners of many of the hewn stones are quite sharp, although the building is considerably more than 400 years old. The thickness of this bed of rock has not been definitely ascertained. It will probably vary in different parts of the ground, but in an old quarry, not far from Rosyth Castle, there is an exposed face more than 30 feet high, and the bottom rock does not appear to have been all taken out. The pick marks on that rock face are quite fresh, and the angles of the rock are quite sharp, although the quarry has long been abandoned, as is shown by the fact that trees of a considerable size are growing on the old quarry waste. Any contractor doing work in the neighbourhood would willingly give for such rock a lordship or royalty of £8 per pole, or £1,280 per acre. That price would fairly represent the value of the rock to the Admiralty in connection with the execution of their contemplated works.

Seventh. One other point connected with the land purchased requires to be noticed, but in some respects this is the most important consideration of all.

The Admiralty have purchased, not only sufficient land for the largest naval establishment ever likely to be erected on the shores of the Forth, but they have also bought a large area of land on which dwelling-houses will be built for their workpeople.

It is believed that 1,000 acres will prove more than sufficient for all the requirements of the naval base. The naval works at the great ports of Chatham, Portsmouth, and Devonport vary considerably in size, but it may be

ken that they occupy about 1,000 acres at each place, clusive of foreshore. At Rosyth there is such a fine of foreshore and shallow water that less solid land ll be required. It is difficult to imagine that the naval se at Rosyth will ever rival in importance the great ablishments in England just named, but if we assume t 1,000 acres in all will be set apart at Rosyth for the vernment works, there will remain 463 acres of land ich can be disposed of for the erection of the dwelling-ses, shops, and the other buildings required in a n.

It has been stated in the House of Commons on behalf the Admiralty that they do not themselves intend erect houses, but propose to feu the land, and to e the houses required, to be provided by builders in ordinary way. But the future town will, no doubt, laid out by the Admiralty, as ground landlords, and may expect that care will be taken to provide for health and enjoyment of the inhabitants, who are ected ultimately to number many thousands.

Lord Linlithgow's representatives desired that only land required for the works proper should be acquired he Admiralty, leaving to his Lordship the land which be required for dwelling-houses. On the other hand, Admiralty held that, as their works were to be the ns of collecting the population to occupy the houses, them should belong the profit arising from the tion of these houses. In other words, both seller buyer claimed the unearned increment which will e from the creation of a new town.

Lord Linlithgow's advisers maintained that the iralty had power to acquire compulsorily only the l actually required for the naval works, and in view they were supported by the lawyers whom

they consulted. We, on the other hand, held that the Admiralty could acquire land on which to build houses for their own workpeople. But it is a much more doubtful point whether the Admiralty can compulsorily acquire land which they may intend to sell, or feu, to third parties, who will erect upon it the houses required, not only by Government employees, but also by the shopkeepers and other tradesmen, who so largely make up the population of any town.

We were informed that the law upon this point is still uncertain, and we conducted all our negotiations with the knowledge that, if we failed to arrange an amicable settlement, this point would be raised as a barrier to the acquisition of the land in question.

The importance of this point cannot well be overestimated.

The ordinary feuing rate for workmen's houses in the outskirts of the neighbouring town of Dunfermline—three miles distant—is from £20 to £25 per acre.

One enterprising speculator has already secured some land adjoining that purchased by the Admiralty, and has undertaken to pay more than £50 per acre per annum for it.

If only two-thirds of the 463 acres of available building land belonging to the Admiralty were feued at the lowest of these rates—£20 per acre—the annual revenue would amount to over £6,150, while interest at 3 per cent. upon the purchase money for the whole property bought, including the minerals, amounts to only £4,042 10s. If these estimates are realised the result will thus be that the Admiralty will have a clear income of over £2,100; the 1,000 acres of land devoted to the naval works will cost them nothing; and they will still have 150 acres of land for parks, playgrounds,

ools, or any other public purpose they desire to ote it to, so that Rosyth may indeed be made a den City.

With all these considerations in view we felt bound ring our negotiations for the purchase of the lands ately to a successful termination, although we might ire to pay a very liberal price, as undoubtedly was e.

Eighth. All through our negotiations the advisers Lord Linlithgow pressed upon us very strongly the that the amenity of Hopetoun House would be tly impaired by the construction of the numerous kshops necessary at a great naval arsenal. We were ted to visit Hopetoun House, and found that great had been taken to preserve unimpaired the beauti- views across the firth, which form one of the great actions of that noble residence. In all these views yth is the central object. In considering this ques- we could not fail to remember that, while some le are to be found who say that the amenity Hopetoun House has already been destroyed by construction of the Forth Bridge, others say, with l confidence, that that noble structure only adds e beauty and interest of the landscape. A similar rsity of opinion may be expected to prevail rding the question with which we had to deal. le some people will say that the amenity of Hopetoun se will be destroyed by the new naval works, thers will say that, separated as the two properties by an arm of the sea, no harm whatever will be to the Marquis of Linlithgow's residence, and that, he contrary a great dockyard will only add to the rest of the scene. For myself, I lean pretty strongly e latter opinion, but in advising the Admiralty, or

any railway company or other public body acquiring a property compulsorily, a surveyor has to keep in view not only the opinion which he himself had formed on such a point as this, but also what an arbiter or umpire may think, if a private settlement is not effected, and it is found needful to assess the amount of compensation under an arbitration.

The advisers of the Admiralty in this case could not, and did not, shut out of view that consideration.

In Parliament it was said that, instead of paying for these lands the sum which was given, the Admiralty should have taken the steps needed to enable them to acquire the land compulsorily, and then left the price to be settled by arbitration. As has been already mentioned it is at least uncertain that they could have acquired in this way the land on which the future town of Rosyth will stand. But assuming that this course was open to them, the question arises, would it have been wise to follow it? Some of us who have had a great deal to do with arbitrations have come to hold the opinion pretty strongly that the more cases we settle privately the better it is for our clients.

Quite recently a friend was good enough to give me a table which he had prepared showing the result of 17 arbitrations regarding land acquired for various water works in Scotland. The result was that an average of fully £59 per acre was awarded for 1,174 acres. The greater part of that land consisted of hill pasture and moorland, often let at only a few shillings per acre, and most of it from 700 to 1,200 feet above the level of the sea.

For the construction of the branch railway into the naval works, it has been found necessary to acquire fully six acres of Inverkeithing Parish Glebe. That land

ly separated by a public road from the land previously
ght. The price was fixed in January last by a
ator appointed by the Court of Session, without
se authority the glebe could not be sold, and the price
77 per acre.

When we compare those prices with the £84 per acre
n for the land at Rosyth, possessing all the advan-
s we have mentioned, the advisers of the Admiralty
confident that the land purchases at Rosyth have
arranged upon terms which will prove to be by no
ns unfavourable for the buyers.

Sir JOHN F. L. ROLLESTON, M.P. (Past-President),
he was sure all would agree that the best and most
eful thanks of the Members of The Institution were
to their distinguished colleague from Scotland for
nost interesting and able Paper.

There could be no doubt that the acquisition of
tory for the purpose of a naval base bordering
e historic anchorage of St. Margaret's Hope was a
y conceived in the best interests of the country,
ng regard to our keeping that command of the sea
h seemed to be essential to our Imperial existence.
this policy he thought no fault could be found,
ially as all the conditions requisite for the purpose
ed to exist on the Rosyth and the Castlandhill
es. But what was of more immediate interest to
in that Institution was the question of the terms
gotiation between their colleagues who had so ably
ucted this important transaction, and he certainly
ed with the author of the Paper that in a trans-
n involving such a large expenditure of public
ey—a transaction between the Government on the
nand and a member of the legislature on the other—

some description of the details of the negotiation was desirable, not only in their interests, but in the public interest, especially as the transaction, when attacked in the House of Commons, was somewhat lamely defended.

It was a little difficult to criticise the terms of the purchase of an estate which one only knew by passing it on the railway over the Forth Bridge, and he was not going to presume to dispute for one moment any of Mr. Binnie's postulates. The land certainly seemed to have been underlet; for 27*s.* 6*d.* an acre was, he believed, the average rent of the dry land, including the woods and the mansion, and, as all knew, land capable of growing potatoes was usually let at a much higher rent than that. He did not suggest that Mr. Binnie was wrong in discarding any legal objection there might be to the compulsory acquisition of the estate as a whole and treating the whole of it as acquired compulsorily. He would grant that the land had a certain feuing value, though to the practical mind that did not mean much—that the minerals, the whinstone and sandstone, were valuable assets, and were well purchased at the sum which had been mentioned, and that the amenities of Hopetoun House were likely to be injured by the sale of the estate across the Firth. All that he thought might be conceded; but to his mind there was still a weakness in the settlement which was disclosed in the Paper itself, and which, he thought, seemed to call for some further explanation.

It was said in the Paper that the usual practice in Scotland, when land was acquired compulsorily, was to take 30 years' purchase of the fair rent (by which he took it was meant the gross rental), and then to add 50 per cent. for compulsory sale. He could well understand

t when a railway company, or other corporation act- under powers, acquired a strip of land running ough an estate, taking the exact quantity it required l no more, then the allowance for compulsory sale on ely agricultural land might be liberally interpreted was it to be understood, as the author of the Paper plied, that that was applicable to an estate purchased a whole, and that when the fair rent, the minerals, amenities, and everything else had been duly taken consideration, then 50 per cent. was added at the of all that, according to the practice prevailing in tland ?

Was it to be taken that the country had actually l the owners of those estates that amount in ordance with the usual practice in Scotland? If not, t amount had been paid in that respect? That, he ught, would be interesting information, without ch, he submitted, the particulars of the transaction e not complete.

The elucidation of this matter was of particular rest to him personally, because he was surprised to the defence of the Government when the matter discussed in the House of Commons; but having no information on the subject he was unable to vene. The Civil Lord of the Admiralty said in effect the Admiralty had given £7,000 more than their rts advised was the value, because he was told that it best to settle, as, if the matter went further and ration was resorted to, it was the invariable practice mpires to give 30 years' purchase on the fair rent, 50 per cent. for compulsory sale afterwards, which ld mean, if that method were adopted, that the ernment would have had to pay a very much larger e.

That statement hardly seemed to agree with the explanation given in the Paper, for it seemed to imply that Lord Linlithgow, in the settlement, had foregone the 50 per cent., which was the usual practice in Scotland, and that the country had escaped that payment; but it was difficult to imagine that Lord Linlithgow's practical valuers would forego such a large amount as that on his account, especially if the payment was in accordance with the usual practice, and if they were assured of receiving it if they had resorted to arbitration.

He thought that the public were entitled to a little more information on this point, and that in an important national transaction of that kind any ambiguity was undesirable. He altogether dissented from the view indicated by the reply of the Civil Lord of the Admiralty, that under any circumstances would a resort to arbitration not have been preferable. Indeed, he (Sir John) thought it was unfortunate that that method had not been adopted in this case. The eminent valuers engaged would then have appeared *coram publico*, and would have given full explanations of their assessments, which would have been before the public. Especially in the case of a transaction which was, as he had said, between the Government and a member of the legislature, it seemed desirable that the parties should have relieved themselves, in some sense, of responsibility by appointing an umpire whose expert knowledge would have been applied to the consideration of the case, and who would have had the advantage of expert evidence as well, and whose decision would certainly have commanded greater respect in a critical House of Commons than a negotiation privately conducted could possibly do.

His own experience of arbitration was that the awards of Arbitration Courts usually proved to be ulti-

y satisfactory, certainly as much so as other judicial ons. But Members of The Institution who acted as ators were held up in the House of Commons as g loosely large sums of public money—50 per cent. mpulsory sale in all cases ("invariably" was the ssion used), so that the Government were compelled der to escape this terrible exaction, to settle at a n excess of that which their own experts advised was the value. Thus the matter appealed to him lember of The Institution. It seemed to him that tatements going about, without protest, were likely injurious to a profession, the heads of which, he tted, comprised men of knowledge and experience ould be relied upon, under all circumstances, to give nd judicial decisions which neither the House of ons nor the public itself could impugn.

ere was one more point to which he would refer. author of the Paper appeared to imply that, gh it seems doubtful if the whole of the estates be purchased under powers by the Government, e valuers treated them as if they could be, leaving natter to be threshed out subsequently. Pre- ly, therefore, the 50 per cent. for compulsory sale aimed and paid, or some part of it, on the whole ; but then came a further claim for the incre- n value of surplus land which would be caused by tablishment of Government works on those estates. appeared obvious that these two claims could not e properly made. If the estates were purchased compulsory powers, only their value to-day could nsidered, and certainly not any increased value might result from the works of the purchaser.

e 50 per cent., which was the usual practice, would compensate the owner for wresting the property

from him; but if he received that, or any like amount, he surely could not claim the increment in value which the establishment of the naval base would confer on the surplus land. But the author of the Paper, although he said the Government valuers resisted this view, entered into a statement as to what the Government might make of the land after they had bought it, and admitted that those considerations induced him to settle at a liberal price. So it appeared as though the public had paid on both points, viz. for compulsory sale and future increment in value, which, in his humble opinion, was unsound. At all events the terms of the settlement were not quite plain, and he ventured to suggest that the interest of the Paper would be much enhanced if the author would throw a little more light on those points.

Lastly, he had only to express the indebtedness of The Institution to Mr. Binnie for his Paper, which was needed, and which would be a most valuable contribution to the discussion of an important subject. The Paper was avowedly read for the purpose of evoking criticism, and if he (Sir John), as one who had at times to defend the actions of the Government, and in this case the author's action, as he did most heartily and thoroughly, had criticised the Paper, he could assure Mr. Binnie that he had done so merely in the interests of the public and of the Surveyors' profession, and not that he for one moment doubted that the transaction which he conducted and the advice that he gave was the best that could possibly have been given, and that the Government, were well advised in following it.

Mr. J. H. Sabin (Professional Associate) said that after the able speech of Sir John Rolleston he would not

ure on any serious criticism of the Paper; but he
t express an opinion that the Government had made
ncommonly good bargain when they bought the
e on the terms detailed in the Paper. He was not
l disposed to criticise the methods followed; but on
whole, he believed it was the best plan when the
rnment or a corporation desired to acquire property
low a price as possible to go to work by private
tiations rather than by compulsory purchase.

Ie had in mind a very large transaction indeed
the Government of 1880 attempted to purchase
roperties of the London Water Companies, and he
ired to say that if those purchases had been carried
on the lines and at the prices which were then
d to in a voluntary way, Londoners would have
a very much better bargain than was now the
when recourse had been had to the method of
ration.

e was not therefore disposed to quarrel with the
gement which the Government had made with
d to the purchase of the naval base on the Firth
orth. One must remember that the whole thing
a surprise. No one anticipated that the Govern-
had any such intention—or, at any rate, it was
known to a very few—and the very fact that it
surprise placed the owner of the property under
vantage, because it could not be suggested that
Government must necessarily and of compulsion
re that particular site. This fact must have a very
g influence on the price fixed. When either the
rnment or a corporation had an option of taking
r this or that, and when the owners of a particular
erty were ignorant as to exactly what it was in-
d to do, they must be placed at a disadvantage in

settling the price. As he understood it, this was an entirely voluntary bargain. The Government might have withdrawn at any time, and might have gone to another site, either higher up the Forth or lower down, to acquire a suitable property; but they chose this particular site, and did the best they could for their clients —the nation at large.

He did not think, on the whole, having regard to the importance of the work that was in hand, that it could be said the Government made a bad bargain in buying the property they wanted at something under £90 an acre, when one had regard to the fact that no railway company, under ordinary circumstances, could buy even agricultural land at anything under £100 an acre.

Now there appeared to be a somewhat different method of valuing land or properties for compulsory purchase in Scotland from that in England. No one would think of selling land to a corporation at 30 years' purchase with an addition of 50 per cent. for compulsory sale. He should be very sorry to sell any agricultural land with which he had to do at 30 years' purchase of the present agricultural rent, and he should think it a very poor solatium to get 50 per cent. in addition. He should expect to get 50 or 60 years, and 10 per cent. besides.

If that were the method which obtained in Scotland, then he did not think there would be many people in England anxious to follow such an example.

In seconding the vote of thanks, he wished to say he considered The Institution indebted to Mr. Binnie to an unusually high degree, because it was not often that the whole story of a purchase and settlement of any large estate was recorded in such a way that it could be easily referred to in after time. There generally seemed to be a

ling that something was withheld, something kept back
t might be of value; but Mr. Binnie had been good
ough to give the whole story from beginning to end,
d a more complete story or a more interesting one he
s quite sure was not to be found in the pages of the
ansactions. The inception, the carrying out, and the
npletion of the negotiations were all given in such a
m and put in such a way as to be readable now and
luable for reference in the future, and he was heartily
d to have the opportunity of seconding the vote of
nks which had been so ably proposed by Sir John
lleston.

The PRESIDENT said he did not feel he could add
ything to what had been so ably and well said by
John Rolleston, but it gave him very great pleasure
cordially join in congratulating Mr. Binnie on his
id Paper, and on the admirable way in which he had
d it.

The question whether too much or too little had
en paid for a property depended on the facts.
e wanted, before expressing an opinion, to see the
d and to become thoroughly acquainted with all
details, and it was hardly possible to compare one
perty with another.

In the case of railways, when a small portion of land
s taken, the price was, he thought, generally found to
rk out at about 100 years' purchase on the land taken
luding the ordinary compensation for severance or
erwise.

This large estate had been bought, including every-
ng, for about 83 years' purchase. Whether that was
much or too little he was not able to say.

As a rule he believed it was best to settle such

matters without going to arbitration, and yet he hoped the day was far distant when those happy arbitration meetings would have to be entirely dispensed with. He hoped and believed that The Institution would always do its best to train up men well qualified to decide with knowledge and impartiality, whether between any two ordinary parties or between the Admiralty and a member of the legislature.

Mr. BINNIE, in reply, said he was exceedingly obliged to the meeting for the patience and attention with which his Paper had been received. He was especially indebted to Sir John Rolleston and to the seconder of the vote of thanks for the kind way in which they had spoken. There was nothing he desired so much as frank criticism.

He was sorry if he had not made exactly clear the details with regard to the transaction. The object of those conducting the negotiations had been to buy the two estates and to acquire the whole of the land which the Admiralty desired to take. It was valued in the ordinary way, adding 50 per cent. to the fair agricultural value of the land.

There was added, of course, a special sum for the Mansion House and for the policy grounds, which could hardly be considered let at all. There was also to be considered the very great value of a part of Castlandhill as a possible quarry. Then, after a fair valuation had been prepared, which came very far short of the sum that was claimed—very far short indeed—there were several meetings with those representing the owners, when the views of either side were frankly expressed. When they parted, the owners' representatives declined to commit themselves to sell anything except the land that would

required for the naval works, and contended that the vernment could not acquire land which they intended ıse as if they were building speculators.

The advisers of the Amiralty had this to face, and it that consideration which ultimately led them to ise the Government to give more than their own mate of the valuation of the land, for they felt certain t in buying the surplus land they were putting their nts into a position not only to sell it at a good price, to sell it at such a high price as ultimately to ɔup themselves for the whole purchase money of all land bought. Had the representatives of the two es parted, unable to agree, and had the matter gone arbitration, the very first thing the seller would e done would have been to refuse to sell any land ept what was required for the Government purposes, l, had they succeeded before the Courts of Law (where t question would have been fought out) in preventing Government from acquiring the additional land, the imate cost to the Government would have been very ch more than in the way the transaction had been ried out.

There had been no such thing as first adding 50 per t., and then adding to that the increment of value sing from a building speculation. Fifty per cent. for npulsory sale was added, not to the rent at present ng received for the land, but to the *fair* rent of the d if used in the way that a very large portion of the d was now used.

He thought it was not very often that one found a mer, farming less than 300 acres and year by year king a clear profit of £2,000 a year.

This was there found to be the case, and indicated etty clearly how very much under-rented that par-

ticular farm was, and how very great the increased rental would be if the land were now in the market. That was not left out of account.

Sir JOHN ROLLESTON asked whether the whole of the land was treated as purchased compulsorily or not.

Mr. BINNIE replied that it was.

Sir JOHN ROLLESTON: And 50 per cent. added?

Mr. BINNIE said that was so on the whole, but there was not added to that any other sum in respect of the advantage which the Admiralty would get in acquiring the land, other than this, that when the two sides came to be within less than £10,000 of one another, he advised the Admiralty that they should not break off for that amount (for it was worth more than £10,000 to them to make sure of getting the building land into their hands), and that they should give the additional sum rather than run the risk of losing what would be to them a profitable estate.

The Admiralty were, of course, going to make it building land, but that was not the question. The question was whether the Admiralty had power to acquire any land, except to use for their own works, and the instructions given to their representatives, on that point were, that it was quite uncertain whether, if it went into court, the Admiralty would not be told that they could not get power to acquire that land out of which a profit was to be gained.

The vote of thanks having been put and carried unanimously, the Meeting then adjourned.

The next Ordinary General Meeting was announced to take place on March 21st, at 4 p.m.

AT

THE ORDINARY GENERAL MEETING

Held on Monday, March 21st, 1904.

ALBERT BUCK (President) in the Chair.

The discussion on the Paper read at the Ordinary eral Meeting of Monday, February 22nd, 1904, by . Elwes, F.R.S., entitled "British Timber and its ," was resumed by

Mr. DANIEL WATNEY (Past-President) who said he ed, first of all, on behalf of the Council and all the bers, to express their deep obligation to Mr. Elwes his very able Paper on "British Timber," and also is great kindness in bringing the slabs and photo- hs to illustrate it, showing the quality of the timber arious parts of England and Scotland, and the rkable size attained by many trees grown under irable conditions.

special value attached to a Paper by such an expert r. Elwes, who had been engaged in forestry for some ears, and had travelled through almost every country he globe to see the trees growing in their native at. He must ask indulgence if he did not altogether on all points with Mr. Elwes, who, he was quite would not resent his criticisms. He could not with regard to a probable timber famine. He knew

that in all discussions of the subject, in Parliament and elsewhere, it was usual to say that we were on the eve of a timber famine. He could hardly believe it while there were such large unexplored tracts of forest land abroad where magnificent timber grew. The one need was some proper means of transport, and when once facilities were found for the carriage of the products of those great natural forests, there need not be any fear of a timber famine. He had been through large tracts of forest in Sweden and Norway, where natural reproduction was going on very fast; and when he remembered that the same thing was taking place over immense tracts in every part of the world, he thought this country might look forward without fear of a timber famine, at least during the present century.

Again, he did not think the supply in England was running short at all. He had a long talk with his old friend Mr. John Clutton years ago about the supply of timber in England, and his theory was that on nearly all large estates the annual increment was scarcely ever exceeded by the amount felled; and when one considered the increment at from 2½ to 3 per cent. compound interest every year, it could well be understood that the supply was kept up.

As to the continental systems, British foresters had been told that they did not manage woodlands and tracts of timber on proper principles, as was done on the continent. But he had been in a good many forests where it seemed to him one great object was firewood. The butts were used for commercial purposes, and there was no waste. All called waste in this country was there used for firewood, and on this point the principles governing the forests abroad were different from those which governed our own woodlands.

In his Paper, Mr. Elwes had said, as was usually stated
neetings and discussions on timber and forestry, that
e were from 14 to 16 millions of acres of waste land
England. But the whole of it was not available for
nting. Perhaps about half that quantity was the
ximum of land that could be planted, and no doubt a
e proportion of that might be planted with advan-
e to the country at large, both in the way of pro-
ng timber for the future and also in finding employ-
nt.

But then came the most important question: Where
the money to come from: who was going to do it?
t was a problem which he must ask Mr. Elwes to
sider.

It was stated in the Paper that the chair factories about
h Wycombe were now taking foreign beech timber.
t was easily accounted for, because in every village
Buckinghamshire on the Chiltern Hills there was at
t one chair factory, and generally two or three, and
greater part of the timber that was ripe had been
d up. With regard to underwoods, these were fre-
ntly found to be quite unsaleable, and did not pay
the rates and the woodman's time in keeping the
ces in order. He took no account of them, but that was
the more reason why all the tellers, whenever under-
d was cut, should be preserved, whether they were
, ash, beech, cherry, alder, birch, or willow. They could
ays be thinned out afterwards without much trouble,
they ought all to be saved. It was being asserted
ry day that Scientific Forestry was required, and that
ry owner and agent and all the foresters and woodmen
st be educated on scientific lines, but he thought
t might be overdone. Every owner or agent of an
te ought to learn the principles of scientific forestry,

but he laid a great deal more stress on practice than on scientific knowledge. The owner or agent could always regulate the practical man and see the work done to his liking.

As to plantations, one very frequently saw new plantations allowed to grow utterly neglected for 20 or 30 years, and the owner would then say with pride, "Look how my larch is growing." The trees were planted three, four, or five feet apart, and, of course, ought to be thinned periodically. After 30 years the owner would thin them, and almost always too much. Then the wind got in and played havoc with them. This was a question more of practical than of scientific principles, and if the forester did not know the practical effect of such a method he should be taught.

Returning to the question of natural reproduction, he held that in the woodlands of England there was no need to plant, for natural reproduction would do all that was required. In Sussex and Surrey, oaks came up naturally, and all that was necessary was to save them to secure a succession of timber. It was the want of succession which had spoiled large areas of woodland in this country.

On the Chiltern Hills, in the beech districts, the beeches only wanted to be left alone. They grew without any trouble whatever, and when a big one was felled a smaller one soon took its place and grew very rapidly.

With regard to making a plantation of oak, he believed the best way was to steam-cultivate the land twice, about 10 to 12 inches deep, this labour costing from 16*s*. to 20*s*. an acre. Then acorns should be sown broadcast and ploughed in. If the land was then properly protected and fenced round there was very soon a good

ıtation of oak—always providing the soil was able.

Then after three or four years the fringes should be ıted with holly, yew, privet, or rhododendrons (or , if on the chalk) to provide cover for game, for the stion of game could not be eliminated from the ıagement of woodlands in England.

But on one point he thought every one would agree ı him: the first thing to do before any system of ntific or practical forestry could succeed was *to clear rabbits off.*

He could not agree that if Mr. Elwes had put his ıey into Consols instead of planting he would have ı a richer man. If planting was done with the gment and the experience which Mr. Elwes could ıg to bear on it he could not believe that this was e. As a surveyor he had, of course, been over very ıy hundreds of estates, and he was quite sure he ld appeal to all present to agree with him in saying t a well-timbered estate, if properly cared for as to woodlands, would fetch a great deal more in the rket, quite apart from the commercial value of the ber. When an estate had been neglected, the timber badly and wastefully, and the woodlands allowed to into bad order, it was very different. He had only nention as illustrations three estates that the English oricultural Society had recently visited, Highclere, vood, and Savernake, and ask what would they be th without their fine old trees. He considered it the duty of every owner of an estate to plant some- g every year, though it might not be much, and to o a good nursery going.

There was one difficulty in every case—the ques- of rates and taxes and the estate duty, which sed very heavily. There could not be any profit

out of planting, or certainly very little beyond the expenses of thinning, for thirty years, and yet the owner was liable to pay rates and taxes and estate duty from the time he planted. He thought something ought certainly to be done to exempt all land planted from any rates, taxes, or estate duty for thirty years. It was said that, with the sanction of the Board of Agriculture, the owner could borrow the money from a land company. He did not like that way at all. There was a great danger in it, for if one planted, the planting must be done to the satisfaction of somebody; and once one got a government official on to his woods or estate, he was no longer his own master, and, if for that reason alone, he decidedly objected to planting being done by money borrowed under the auspices of the Board of Agriculture.

He agreed with Mr. Elwes that large oak had fallen in value during the last 40 years because there was now not any "dockyard" oak, but smaller oak retained its value.

Turkey oak had been mentioned by Mr. Elwes. According to his own experience it was not good for use out-of-doors, though very good for indoor work. As to Spruce, he did not think it worth growing, and in fact did not like it at all. In one plantation of spruce he had found that when the snow came nine out of ten of the trees were broken off three feet from the top, and, when grown, the value was only about 3*d.* or 4*d.* a foot, and there was only a very poor sale for the timber.

He quite agreed with the author that Larch was worth all the other conifers put together, but it was unfortunately subject to canker. His advice, when one found canker in a plantation, was to cut all the cankered trees, peel the poles, gather the peeling and branches together and burn them. That was the only way, and that ought to be done in all cases where cankered larch

as cut. Japanese larch was said not to be subject to nker or disease like our English larch. He had not d very much experience of it at present, and in all the urserymen's catalogues it was too expensive for general anting. A few years ago he had obtained some ounds of seed direct from Yokohama, at a cost of 15*s.* pound. Without being quite sure of his arithmetic, e thought there were 30,000 to 40,000 seeds to a pound: , if the price was high, it was not extravagant in the d, if one made sure of getting it from the right place. f course one had to wait a few years before it came to anting out.

As to Ash, he agreed there was nothing that could ke its place. There were some substitutes, but they ere not equal in any way to English ash. Whether h was large or small it could all be used, and from hat he knew and what he had sold he thought ash was ow quite as dear as oak, if not dearer.

The Douglas fir seemed to be the tree of the future. e thought it would supersede larch if the quality grown England equalled the Oregon quality. Mr. Elwes d referred to the estate in Berkshire of Dr. Watney, ho had kindly given him some particulars of two of s plantations. One lot was planted in 1882-3; the ants being 3 feet 6 inches high, on fairly good soil, y and gravel overlying chalk. There were 33 trees easured, not taking the best, but the fair average, and er 20 years' growth they had an average height of 51 t, and the girth was 41 inches at five feet from the ound. He thought that might well be regarded as a cessful plantation. The second lot was on a very or wet soil, gravel and clay of no value for farming. at was planted in November, 1893; the plants being inches high. Thirty-one trees were measured the

other day, and after 10 years they averaged 23 feet in height; the girth 5 feet up being 13½ inches.

In a Paper reprinted from the *Journal of the Board of Agriculture* of December, 1903, Dr. Somerville stated that Douglas fir in a plantation of Lord Mansfield's at Taymouth near Perth was measured by Dr. Schlich in 1888, and again in 1893 by Mr. Pitcaithley (for Dr. Somerville), this latter measurement giving 7,977 feet per acre by quarter girt measure. This plantation was made in 1860, and therefore in 43 years, and taken at 1*s.* per foot, it is now worth nearly £400 per acre.

Mr. G. Marshall (Visitor) said it gave him great pleasure to add his personal thanks to Mr. Elwes for his admirable Paper, the points of which had been so effectively illustrated and so well explained by means of the large and varied collection of specimen planks of different woods. He knew no man more enthusiastic on the subject or who had devoted so much time and intelligent thought to the study of this question both at home and abroad.

Reference had been made to the immense influence that surveyors exercised in advising landowners on the best means of treating large areas of land more adapted for afforestation than for agriculture. That was true; but he ventured to suggest one or two reasons why comparatively little planting was carried out in proportion to the quantity of land which was being, year by year, denuded of timber.

He thought, perhaps, the principal reason was that a landowner when it was suggested to him that a certain portion of his unproductive land should be planted, would ask why he should so spend the money when he had no chance of seeing a return for it in his lifetime:

or he might say, "Yes, that is all very well, but I have "had enough of throwing my money away; look at that "plantation which cost me so much to plant. It is a "miserable failure, and my money is practically wasted:" or again, he might very justly argue that he did not care to spend money in planting, when the land, although unproductive for many years, would be heavily rated and subject to onerous death duties.

There was no doubt a good deal to be said in favour of the wisdom of these reasons why a landowner should not invest his money in planting. In the first case, on private properties there was no continuity of management. An owner might spend a large sum of money in planting and maintaining his plantations and his heir might care nothing for them, and might, perhaps, replace his staff of woodmen by extra keepers, giving the place up to game and rabbits, and thus undoing the good work and wasting the money spent by his predecessor. There was no doubt that the Government should give some encouragement to landowners, as recommended by the Departmental Committee in 1902, on which he had the honour to serve.

Secondly, nearly all the failures in planting were due to two causes, the first being that the so-called forester knew nothing about his business and planted the wrong sort of tree, quite unsuited to the soil and aspect; the second, that the keeper had more control over the plantations than the forester, and not only allowed irreparable damage to be done by rabbits, but also objected to the forester and his men attending to the plantations when necessary, on the plea that the game would be disturbed.

In a very able lecture recently delivered at Carpenters' Hall on "The Forestry Problem," Dr. Schlich stated that "the home production of timber does not

"exceed two million tons. Over and above that, we "import ten million tons, so that only 16 per cent. of "all the necessary timber is produced in the country. "The increase in annual imports between the years "1864 and 1899, amounted to $6\frac{3}{5}$ million tons, or an "average annual increase of 190,000 tons a year. Eighty-"seven per cent. of this timber was pine and fir, 3 per "cent. oak, and 10 per cent. teak, mahogany, &c. Hence "90 per cent., or nine million tons, is material which can "be produced in this country by the afforestation of six "or seven million acres of land. The value of this "nine million tons of timber is estimated at £20,623,000.

"In 1902 we imported 525,000 tons of wood pulp, "for which we paid £2,398,215. Surely," said the learned professor, "if we can grow anything, we can "grow timber fit for wood pulp."

He thought all would agree that this was a great national question, worthy of the most earnest attention on the part of the Government.

He was happy to say that steadily, year by year, more interest was being taken in this question, and that more men were receiving sound practical education and training in forestry, notably by the establishment of a working school for foresters at the Forest of Dean, by the establishment of a Chair of Forestry at Cirencester, and by efforts recently made by the Carpenters' Company to encourage forestry by offering handsome prizes for essays, and by having lectures at their Hall.

The question of the action taken by county councils and local authorities in charging timber merchants for extraordinary traffic had been touched on. This he agreed in thinking most unfair, and he was sorry to see that in the case of *Norfolk County Council* v. *Green*, recently tried before Mr. Justice Walton, it was held

at the timber merchants were liable, where many ears' growth of timber was removed at one time, lthough had the timber been removed a little at a time, preading the time of cutting over several years, the udge considered that it would then be a question, not f extraordinary, but of ordinary traffic. A landowner ontributed to the rates during the whole time the mber was growing (often, in the case of oak, from) to 150 years), and when his crop of timber matured nd was cut he did not realise its full value, because the mber merchant knew that he would be mulcted for xtraordinary traffic, and consequently allowed for this harge at the expense of the owner of the timber.

The general unwillingness of timber merchants to cognise as valuable timber several of the varieties umerated in the Paper had been referred to. He did ot, however, think that the author blamed the right en for this. Surely it was the architect and the con- mer of the timber who was to blame, not the timber erchant, who was always ready to buy, providing he d an assured market for the produce.

With regard to English oak as compared to American, e former was by far the better wood, both for strength d durability. He remembered that, some years ago, e London and North Western Railway gave up ying English, and took to American, oak for carriage d truck building, and on a large timber merchant inting out to them that English was by far the best d most durable wood, the storekeeper replied, "What you say is perfectly true, but we don't want our trucks and carriages to last too long, as there are frequent changes in the make and shape of our rolling stock."

The oak would reproduce itself freely on most soils,

and one could not fail to be impressed by the sight of a wood full of young clean grown saplings, which, if given a chance, would in years to come develop into a valuable crop. Unfortunately, the young seedlings were more often destroyed by ground game than allowed, by a little careful management, to grow into money. In the forest of Compiègne, recently visited by the English Arboricultural Society, there were to be found areas of beautiful young oak seedlings self-sown and carefully enclosed.

He would like to point out, while dealing with the subject of the oak, that there was a great danger, in these days of quick-growing conifers, of oak not being planted so much as it should be. A landowner naturally planted what he thought would return him most money, and while he and his heirs might realise a crop of conifers in 40 to 60 years, a crop of oak was seldom fit for felling till it had attained from 80 to 140 years' growth.

Ash should always be planted, when suitable soil was available. It was getting very scarce and was always saleable, even at a comparatively early age.

Brown oak was a valuable wood, but took a long time to grow, and he fancied that our American friends did not now buy it quite as freely as they used to. A little of it went a long way, for a single big tree would turn out thousands of superficial feet of veneers.

He could not agree with Mr. Elwes' statement that Wych elm fetched a lower price than the common elm The Admiralty still bought a quantity of the true Wych elm, and, he believed, gave at least 25 per cent. more for it, so he hoped Mr. Elwes' experience in this was quite a local one.

There was one tree not mentioned by Mr. Elwes

hich, he thought, was most useful for estate work, used young and before it developed heart shakes. e referred to the Spanish or sweet chestnut, a eat quantity of which was used in repairs of nces in Windsor Park, and was obtained for about lf the price of oak. The young coppice wood chestnut was also most useful in making Peignon ncing and, as it had now very little value for hop poles d hoops, this was a most useful way of disposing of it. Machines could be had for tying on the palisades, d a man and a boy could erect from 60 to 100 yards day, the fence costing from 1*s.* to 2*s.* 6*d.* per yard, cording to height and the distance the palisades were d apart.

With reference to the conifers, he agreed that larch s worth all the rest put together, and he thought it s greatly to be regretted that it suffered so much m the larch fungus. "Peziza Wilkomii." This ngus settled on the bark whenever it was damaged, d was greatly increased by the careless way in which e dead lateral branches were trimmed off with the arp edge of the tool, instead of the blunt edge.

Scotch pine and spruce, although not equal in ality to that imported from abroad, on account efly of their rapid growth, and very often because ficient attention was not paid to conversion and ing, were most useful for all sorts of estate purposes, re especially in these days of creosoting and other servative treatments. He recently saw, on the Duke Buccleuch's Thornhill estate, a birch stob which, ing been treated with napthaline, had stood fourteen rs in the ground, and was now as sound as the day was put in. Scotch pine and spruce treated by the e process would last for years in the ground.

He had seen the plantation of pure Douglas fir (Oregon variety) on Lord Mansfield's estate near Perth. It was a wonderful sight, and had made an extraordinary growth. He thought this tree was well worth attention, but it would not do well in an exposed position. If it could be grown as well in England as in Perthshire, it would not be necessary to wait so long as Mr. Elwes said for a useful and heavy crop. He should put its period of growth to a useful size at from 45 to 70 years.

Pinus Strobus, Thuja Gigantea, Pinus Laricio, and Cupressus Macrocarpa were all useful trees and should get a fair trial, but enough was not known of them at present, and any experiments in planting them should be on a small scale.

In conclusion, he must express his thanks for having been afforded the opportunity of joining in the discussion of Mr. Elwes' useful and important Paper. He had been among trees all his life and he loved them, but he must say he took more pleasure in seeing them planted and growing well than in seeing them cut.

Dr. W. Schlich (Visitor) said that although he had no detailed criticism to offer, he should like to say a few words on the subject of Mr. Elwes' admirable Paper. He hoped he might be excused for making a slight correction as to the estate in Scotland stated, on his authority, to be worth £400 an acre. He had not seen that wood since 1889, when it was 28 years old, and he thought the estimate was made on the measurement of the local wood manager in 1903. The revised measurement came out at something like twice the quantity of his own measurement in 1889. Although he did not

oubt the correctness of the estimate, he could not accept he responsibility for the figures.

He thought it was a good sign for forestry in this ountry that gentlemen like Mr. Elwes had taken up the atter practically, and were coming forward to deal ith it in its various phases. He felt a little nervous appearing before the Meeting, because his friend Ir. Elwes had in one place referred to "gentlemen whose knowledge of practical estate management is often very much less than their knowledge of scientific forestry," and he had some slight suspicion that he might e included among those. He was conceited enough to ope he knew something about scientific forestry, but e thought he also knew something of practical work. part from the fact that he had worked for 25 years the forests before he became a professor, he had orked his own nursery for sixteen years, and had anted during the last ten years some 2,000 acres of mber. That might not seem much, but he hoped it as sufficient to give him some right to speak as a actical man.

He thought it very necessary to guard against hasty nclusions based upon continental systems. A gentlean had recently gone for a fortnight to Germany and oked about as much as he could in that time and had en come home and written a book on the "new restry." He brought back a certain number of very od ideas, but also many based on too hasty conclons. Everyone ought to be careful to see that the itial facts were right, and above all, when applying the inciples of forest management on the continent to member that the conditions ruling in this country ere in many respects different, though perhaps not so fferent as some people were inclined to think.

To illustrate this, he might refer to the paragraph where Mr. Elwes said that beech was excellent for fertilising the otherwise perhaps inferior lands and for mixing with other trees. The real value of the beech in that case was simply this. Most of our valuable timber trees were not capable by themselves of doing much for the soil. This was true of the oak, ash, larch, &c., and, if the land was too much exposed to sun and air current, the whole of the organic matter disappeared. Here the beech came in as a preserver and increaser of the fertility of the soil. It had been said by Mr. Elwes himself that this was common knowledge on the continent, and Mr. Anderson on the last occasion had referred to the fact as if we had learned it from continental foresters. Although that knowledge had perhaps come back during the last 20 or 30 years from the continent, it existed in England a long time ago. Anyone who had visited the Forest of Dean would have noticed that the oaks of 85 or 90 years of age were, generally speaking, miserable trees, short in the stem, broad in the crown, and of very small height. But every now and then those who had gone about the forest a little found, here and there, one or two oak trees of really quite gigantic size, and the question would naturally be asked how it was that the trees which were now 85 to 90 years old were so small. Surely it would be thought they could never reach the size of these few old giants in their midst. The answer was very simple; it was because the old oaks had grown mixed with beech, and the beech had been cut down with the oak (he thought at the beginning of the nineteenth century) and then, instead of following the good old rule which was so well illustrated before their eyes, the foresters of that day began to grow oak with so-called nurses, such as Scotch

pine. Then the nurses were cut out and the oaks left by themselves. When those oaks were about 40 years old, a forester, who at that time enjoyed, for a brief space, a considerable reputation in this country, conceived and carried out the idea of thinning them heavily. The result was the miserable oak forests which one now saw. Had the foresters in the first half of the nineteenth century followed what was demonstrated before their eyes, there might have been a fine crop of oaks of 90 years of age, which would grow to be as grand as those planted with beech in the eighteenth century. He was by no means sure that a similar case could not be found in the New Forest. Another thing which perhaps we owed to the continent was the growing idea that we had thinned our woods too heavily while young, and that they must be grown more densely if we meant to produce good timber trees; and judging by some of the older trees, he did not believe that in former times woods were so much thinned as they had been in the last 50 years. It was just possible that in the eighteenth century our predecessors acted on the very same method which a good many people were now trying to reintroduce into this country, and grew woodland dense for the first half of its life, so as to produce long and clean stems.

As to the financial question, it was very difficult to prove facts, but he might point out that, when poor agricultural land was turned into forest with a proper proportion of the different classes of trees, the capital on which interest must be paid was at least four times as great as the value of the soil. If land, lettable for 10*s.* an acre, were planted with forest, £2 must be got from it annually in order to return the same percentage on the investment as if it were let as agricultural land. There

were not sufficient data in this country to base actual calculations upon. He had tried several times to do so, and had just completed a pamphlet in which he had dealt with this aspect of the case in answer to several questions which had been put to him since his lecture in the Carpenters' Hall. There was not the slightest doubt that properly managed forest would give financial results comparing favourably with what he would call gilt-edged securities. The property might not perhaps be so remunerative as South African gold or diamond mines, but the security was rather greater.

Various trees had been recommended as an addition to the supply of ash or as a substitute for it, but he had no information to show that any tree of that class could be grown in this country which would surpass our own ash.

Another tree mentioned by Mr. Elwes was black poplar. He believed that, on lands of small value for anything else, black poplar could be grown at most remunerative rates, as Mr. Elwes had proved in the case of the poplar mentioned as having been grown on his own estate.

One word about the Japanese larch. It was generally supposed not to be subject to disease. But when a new tree was introduced, it did not follow that, because it was not attacked by disease during a certain number of years, it was necessarily altogether immune. During the last few years, several instances of Japanese larch being actually attacked by canker had occurred, and there was no knowing how it might spread. The oldest comparative case he had seen was where the trees were about 28 years old, and there he must say that, although the Japanese larch had gone ahead at first, the indigenous larch had caught it up. He did not

hink it wise to assume that the Japanese larch was afe from the disease.

He would urge one point regarding exotics. It was ery desirable to make experiments, but it was not fair o compare timber taken from primeval forests, with imber taken from specimens grown in the open.

He had, at Cooper's Hill, a slice taken out of an normous *sequoia gigantea* grown in the primeval forest nd had placed beside it a slice of a sequoia grown here. he rings of the latter were about ten times the width of hose of the former. To make really satisfactory experiients with exotics they must be grown in small dense atches in the same way as they would grow naturally n the forests. Only in that case could the quality of he timber produced in this country be determined.

He only wished to add that not only the members f The Surveyors' Institution but all who were afforded he opportunity of attending the meeting must, he was ure, feel heartily grateful to Mr. Elwes for having repared and read so valuable and interesting a Paper.

Mr. W. V. K. STENNING (Visitor) said he was eminded how quickly time passed by finding that it as nearly 30 years ago since he had the privilege of oming to The Surveyors' Institution to take part in he discussion on a Paper read by his friend Mr. Daniel Vatney.

During those 30 years very important changes had aken place in the prospects of English timber. With egard to underwood, he thought it might at once be ismissed from consideration, because at the present ime its value was a mere nothing. He knew of cases n his own neighbourhood where the underwood had

been sold at 10*s.* or 15*s.* an acre at 12 years' growth, and in some cases landlords were glad to allow it to be cut down and taken away without remuneration.

There had been during those 30 years much legislation affecting English timber. He had been, for some 10 or 12 years, working on the vexed question of railway rates, and had obtained some concessions, but they were still very unsatisfactory, so far as English timber was concerned, and greatly favoured the foreigner. He could not get anyone to understand the case. The excessive charges fell primarily on the English timber merchant, but, indirectly, they fall on the grower of the timber. He well knew the case of the *Norfolk C. C.* v. *Green*, mentioned by Mr. Marshall, for he had been concerned in working up the evidence in that case. According to that judgment, if a landowner had 1,000 trees, and he cut and sold 100 of them each year, it was not "extra-" ordinary traffic," but if he cut 1,000 trees at the end of 10 years it was "extraordinary traffic," and the merchant had to pay for the use of the roads. The authorities seemed to lose sight of the fact that the owner was paying rates and taxes on that land all the time, just the same as if the timber were cut and the roads used year by year. In many woods it was only practicable to cut the timber once in 10 years, and quite impossible to cut an exact average every year. He bought timber on an estate in Sussex with something like 2,000 acres of underwood, where a certain portion (150 to 200 acres was) cut every year, and the timber followed, and therefore there was no extraordinary traffic. In East Sussex he was glad to say charges were not made against timber merchants for extraordinary traffic, because the timber was considered to be one of the products of the district, and therefore in no

ay extraordinary. What the County Council might o in the future he could not say, but that had been eir policy up to the present time.

Then the Factory Acts had intensified the situation gainst all employers of labour since 1874, and this was so a tax in his own case. He had to pay a heavy sum early as insurance against workmen's compensation ithout any prospect of getting anything back from his stomers. These things were all against the producer. hen, as had been mentioned, there were the death duties. Then these pressed hardly on timbered estates the landrd would decide to realise some of the timber to pay em, and it was cut down, in many instances when not lly grown or matured, to the detriment of the forest enerally.

Then, again, he might mention the constantly creasing cost and inferior quality of labour. There ight be other things in compensation, but he thought e had said enough to show that recent legislation had een entirely against English timber merchants, and onsequently of course against the grower of English mber.

Next as to the tendency of the times. He feared at there was a very general feeling among architects, d perhaps (if he might venture to say so in that om) among surveyors, against the use of English mber, and very much in favour of the foreigner. hat was almost invariably the case when a town was tuated on a river or at the seaside, where the people ere naturally interested in the foreign timber which id for the use of their ports and docks, and English mber had not a very good chance of being used, where fact it was ten to one against it compared with reign timber. The furniture trade had been mentioned

by Mr. Elwes. He could speak from personal knowledge of the small makers in the East-end of London. In Bethnal Green and other districts where cheap furniture was made—each workman making a chair or two at home, and selling them to one of the furniture shops for a week's pay—in all that district, where he used to be able to sell a hundred loads of various thicknesses of beech plank, he could not sell ten to-day. It was all foreign.

He did not suppose that many present remembered the palmy days when all the ships of the Navy were built of English oak, but he was old enough to remember when all the oak was sold to Government or to Sunderland for building ships. That trade had all passed away, and English timber merchants had to depend to a great extent on carriage and wagon building for the railway companies, who, as Mr. Marshall had said, were using foreign timber, although admitting that the quality was not so good, but it was easier to work. Inferior American oak was shipped very largely to Liverpool, and German and other oak to Hull, Newcastle and other east coast ports, going to the North, where wagon building was chiefly carried on, at very cheap rates, and growers of the best oak in the South had no chance of competing with the foreigner. His own firm did their principal business in London, but, sometimes, if trade were slack, to keep his people at work, he had been in the habit of supplying a large firm in the Sheffield district from whom he would get an order for 200 to 500 sets of timber for wagons at £13 or £14 a set, which works out under 4*s.* a foot (perhaps 3*s.* 8*d.* or 3*s.* 9*d.*), but he knew that those very scantlings in all the different sizes required had been imported from America and delivered at Liverpool at 1*s.* 10*d.* a foot. His own trade was principally confined to the three counties of Kent,

Surrey, and Sussex. The railway rate was $8\frac{1}{2}d.$ a foot, nd, adding the labour, &c., it was impossible to buy the imber, cut it down, and pay the rates on it at anyhing like that price. Then as to the value of oak bark, n many cases it did not pay to take it off at the resent time.

The Government, too, in this matter, favoured the oreigner against the Englishman. He was not speaking f any particular Government, for he had found them l alike in that they always encouraged the foreigner ther than the Englishman. It was perhaps a strong atement to make, but he made it advisedly. There as, at the present time, a Government agent at a altic port selecting, and just beginning to send over, h. He had found that, as had been mentioned, there as no wood which would supersede ash grown in this untry, no foreign wood equal to it. He knew that ash d come over from America, and very fine looking ash was—he had seen a great deal of it—but it did not and well for the different kinds of work for which it as required. And yet the Government were beginning import ash and other timber from the Baltic, from hich not even the English shipowners got any profit, uch less the timber merchants.

He had never seen oaks sown as Mr. Watney had scribed, but in his part of the country it was said that good oak could not be grown unless it was self-sown.

With regard to the proposed School of Forestry, he ntured to suggest that no school was wanted, as everyng that could possibly be taught about the growth of glish timber—the trees to plant, the soils for each e, &c., was already known. And then, how long uld this School of Forestry take to show any pracal results?

A point very much against forest production was the incidence of the rates. Under the Agricultural Rating Act only half the rate was charged on agricultural land. If rated at 7*s.* or 8*s.* an acre, no matter how poor or good the crop, it only paid rates on 3*s.* 6*d.* or 4*s.* Directly it was planted it paid rates on the 7*s.* Growing woodland was not exempted, and the rates were a very serious burden on the land for, perhaps, 30 or 40 years. With regard to tithe, owners of woodland in Sussex were very fortunate in not paying tithe. When Queen Elizabeth visited the county and saw what splendid oak was growing there for building ships, she ordered that all the woodland in Sussex should be free from tithe for ever. Thus the land now used as woodland in Sussex had the advantage that if it was found to be poor woodland and was turned into arable, it was still exempt from tithe—once exempt, it was always exempt.

He did not think Mr. Elwes had mentioned the use of box, which was a valuable wood, nor had he referred to the yew, which was one of the trees believed to be imperishable. In Kent there were hop poles of yew which were said to have been in the gardens for centuries. He had seen yew posts taken out of the ground, where he knew them to have been for 28 years, as sound as when put in. He might also refer to the acacia, which was a very durable wood. Holly was difficult to get in large size. He had frequently sent it to France, where it was very largely used for making wood fans. He quite agreed with every word Mr. Marshall had said about the sweet chestnut.

Another point to be considered with regard to timber was that the demand constantly changed, and very violent fluctuations in price occurred. Timber wood for

particular purposes might be valuable to-day, and 20 or 30 years hence be of no value whatever. He supposed no timber was more valuable at the present time than really good willow, used for cricket bats. He hoped this demand would continue.

Continuity of culture was most important. There were many estates where one owner would preserve the timber and consider it as great a sin to cut down a tree (although the timber wanted thinning) as to burn one of the pictures on his walls; and the next owner might neglect the woods or mercilessly thin them. He knew one case where the owner cut down all the young trees and kept the old ones. When that growth of timber went, there would be no trees coming on to take their places.

He had heard many arguments as to the profit of forestry. As he had said, it was his good fortune to live in a district of England where timber grew exceedingly well, and where, on the average, one could, with proper management and properly thinning every time the underwood was cut, make woodland pay 7 per cent. Some would pay even more but, taking the average, the return from natural growth of the oak was quite 7 per cent. per annum. That he thought must be considered a gilt-edged security, but of course continuity of policy and proper management were necessary.

There were many other points in the Paper of great importance and interest to all connected with timber growing, but time did not admit of his mentioning them.

Mr. S. H. Cowper Coles (Fellow) said he wished to join in the thanks to Mr. Elwes for his excellent Paper on forestry. There had lately been a good deal of discussion

on the subject of the county councils combining in certain districts to establish forestry schools; but he did not think that was practicable. He thought a school such as that in the Forest of Dean could afford all the necessary training for young foresters.

A good deal had been said about planting the vast areas of waste lands. But who was to bear the expense? Moreover, Mr. Elwes seemed to forget that on these vast areas there were manorial and common rights, and how were those rights to be extinguished? In cases where large areas had been taken for water-works schemes, not only had the waste of the manor to be bought, but the freeholders in the adjoining valleys and districts who had the right of common over those hills must be compensated. He thought it necessary to carefully consider these difficult problems.

With regard to the question of rates, he did not think there was much to say against the present mode of rating if woods were dealt fairly with, so that when the timber was felled, after the landlord had paid rates for years, the timber merchant should not be taxed again for "extraordinary traffic." He thought some pressure should be brought to bear on the Houses of Lords and Commons. Bills had been passed which were most favourable to traders who used traction engines, and if such facilities were given to other trades there was no reason why one should not be able to use the roads to remove such a product as a growing crop of timber.

A good deal had been said about imported timber and why English timbers were not used. As a seller of a large quantity of timber every year in the South Wales and Gloucester districts, he found that what he sold did not go into his own district, but into Lancashire and the black country. Even if he had decent pit-wood

o sell within four or five miles of collieries they did not uy it, but it went to the Midlands, because the collieries ear a port could buy foreign timber cheaper.

He might mention that larch-planting, particularly ı his own district, had been most successful, and had roduced most satisfactory crops.

Reference had been made by previous speakers to ıe want of a continuity of policy, one owner appreciating ımber and his successor letting it all go. That he did ot fear. One of his clients came into his property 30 ears ago, after a long minority, and sold his larch woods or £100 an acre. He (Mr. Cowper Coles) had lately een selling those woods again for £100 and £150 an cre. Thus, after 30 years' growth, the owner had had is money over again. He did not see how one could esire a better investment than that. Moreover, larch, if nly the rabbits were kept out, made a very good game reserve for pheasants and other shooting.

He had found black poplar commercially one of the est trees, because the return was so rapid. Another ee that had not been much referred to was the alder. served different purposes: it kept our brook and river anks up, and it could be cut regularly, while the grub at fell from it was a special boon to the fisherman.

Mr. H. Jonas (Fellow) said he should like to ask r. Elwes if he had any experience of planting eucalyptus ees, with which he had himself just commenced a few xperiments. Of course, the *E. globulus* was perfectly eless, but the *E. gunnii* was, he thought, quite hardy. e did not refer to it as for the purpose of timber so uch as for improving the landscape by introducing a ler evergreen. These trees were all evergreens, and ost of them were much paler than any we had at the

present time. No one could say exactly what the timber would be worth grown in this country. It would probably want far more sun to mature it than it could get here. He planted seeds two years ago and the young seedlings were planted out on a poor hill side facing east, and were now two feet and four feet high, in two years' growth. Besides *E. gunnii, E. unigera* was just as hardy, while its foliage was of a darker and much brighter green. That had grown seven feet in the last two years. All the others he had tried had succumbed to the frost, as, he feared, most of the species would. But he believed, besides *unigera* and *gunnii,* there were many others that might stand.

Yew had been spoken of for posts. It was necessary that yew for boundary posts should be used whole, with all the bark upon it. So used it would last as long as, or longer than, iron. Although Mr. Elwes had spoken rather unfavourably of the *Taxodium sempervirens,* it was certainly the fastest growing tree he knew of, faster even than either the Wellingtonia or the Douglas fir on the North Downs. He had one which had grown 16 feet in the last five years, and he hoped that its timber would be worth something more than would appear from the opinion Mr. Elwes expressed upon it. Home-grown Douglas fir of course had not yet been much tried, but those who visited the Forestry Exhibition 24 years ago saw the Baltic sleepers used on the North Eastern Railway for many years alongside Douglas fir, and the Douglas fir came out in better condition than the Baltics. Both were foreign grown.

He had the greatest pleasure in endorsing the thanks which had been tendered to Mr. Elwes for the great trouble he had taken in preparing his Paper and illustrating the subject.

Mr. E. T. SCAMMELL (Visitor) said he did not intend enter at all fully into the discussion of the Paper, but should like to hear from Mr. Elwes whether he con-dered that methods of accelerated seasoning should be nployed in dealing with timber cut for the market, so to save the time and cost of natural seasoning, and, if , what methods he would recommend, and secondly, nether he thought it desirable to adopt any wood pre-rvation processes, in order to increase, if possible, the urability and improve the quality of timber, and, if so, hat process or processes he would recommend.

In a Paper which he had read before The Institution st December, he had endeavoured to deal with these o points, and, in the discussion which followed it, r. Elwes had expressed his regret that no particular ethod of seasoning or particular process of preservation d been definitely recommended. In reply, he stated at that was not the object of the Paper, which was her intended to give a general view of the subject, d to allow the advocates of the various methods of atment to speak for themselves.

He felt, however, that he was now free to say that ere was one process which, in his judgment, combined advantages of safe and useful accelerated seasoning d of preservation, and that was the Powell process.

In this process, which had the merit of great sim-city, the wood was boiled in a weak solution of sugar a few hours, and then dried at a high temperature, result being that the wood was rapidly seasoned thout splitting or warping, and the quality of the ber was greatly enhanced.

A number of the timbers mentioned by Mr. Elwes d been experimented upon, and in every case the ults were satisfactory. Elm, for example, was greatly

improved, and after treatment could be polished so as to show a beauty of grain and of figuring that had surprised experts in art furniture. The same might be said of poplar, which, in the opinion of Professor Boulger, was capable of being made into a useful timber, available for a number of purposes for which at present it was utterly unsuited. Yellow deal was so increased in tensile strength that tests of breaking strains showed an increase of from 55 to 100 per cent. Similar tests taken with white pine, pitch pine, and teak gave excellent results, while a crushing test applied to ash was also most favourable to the process.

By this process the absorptive powers of beech, which, as was well known, was one of the most porous of woods, were reduced so considerably that a processed beech block was found to absorb only one-fifth of the quantity of water absorbed by the natural block.

In addition to these woods, spruce, various kinds of firs, and many hardwoods, including oak, had been treated, and all showed considerable improvement by the treatment.

Illustrations of a variety of woods treated by the Powell process were on view in the museum of The Institution, with samples of other methods of treatment, which it might interest members of The Institution to examine.

He thought that if any process could be adopted which would act as a preservative, rendering timber safe against attacks of dry rot and other forms of decay, and enabling it to be seasoned rapidly without deterioration, such a process was worthy the attention of timber users generally, and of all interested in the conservation and development of our timber resources.

Mr. H. J. ELWES said that when he prepared his aper he never ventured to hope that it would elicit ıch a full discussion as that to which he would now ıdeavour to reply. It was obvious that it was just as ıpossible for him to deal fully with all the points that ad been raised, as it was impossible for him within the mits of an ordinary Paper to touch upon many of the de issues which arose out of the question of British mber. But he did want to emphasise one thing—he ad read this Paper before The Surveyors' Institution ecause the Members had more influence on the future British timber planting and the British timber supply ıan any other body of gentlemen in England; because cases of doubt or difficulty they were the arbiters who etermined what should be done and how it should be one.

That being so, he wanted to make very clear what ad already been so well said by Mr. Stenning and thers, that nothing could be done unless the Govern- ıent could be made to realise that Schools of Forestry nd scientific education were of less importance to nglish landowners than some help which would enable ıe home grower to compete with the foreigner. As Mr. tenning had said, no other British industry was handi- ıpped by such unfair competition as British timber, first y the railways, next by taxation, and thirdly by the ndue preference shown, as he had tried to point out in he Paper, by architects, builders, and perhaps in some ases surveyors, and even as Mr. Stenning had mentioned, y Government. Under these conditions British timber ad but a poor chance to show its true qualities, but had o contend in many ways with difficulties to which the ndustry in foreign countries was not subjected. In the ace of all that it was asked why landowners did not

extend the cultivation of timber, why they did not employ more labour, and so on.

He hoped Dr. Schlich would not think he was finding fault with his views, for although he took a much more sanguine view than he (Mr. Elwes) did of the chance of profitably planting the only sort of land that was available at anything like the prices talked about, he did think that a great deal more could be done than had been done under existing conditions.

What he wanted Members of The Institution to realise was, that until they brought home to the landowners for whom they acted the necessity of more careful attention to their woodlands, they would continue to suffer in many ways through faults, possibly brought about by carelessness, but very largely by ignorance. Although very many landowners sat in Parliament, they seemed, as he had said, to remedy everybody's grievances but their own; and he was perfectly certain the great majority of landowners did not realise that, although timber merchants had primarily to bear the cost of transit the owners were really the ultimate sufferers. No timber merchant was going to pay more for a standing tree than he could get for it when felled, after paying all charges. The loss must come back on the landowner, who would never in the end get more for his timber than it could be sold for within a reasonable distance. He hoped that the effect of this discussion would not pass away without leaving results of a practical nature. If it did, he should feel that his Paper had been written in vain, and that the very reason of his coming there had not been fulfilled.

Reference had been made by Mr. Anderson to railway rates, and the subject had been threshed out very fully by other speakers. The gross unfairness of the railway rates could only be realised by a timber

erchant, or until one had his own recent experience in llecting timber.

This served to show that unless the grower could ize the local market (notwithstanding what had been id by Mr. Cowper Coles as to his timber going from Vales to the Midlands) he was heavily handicapped. Ie lived some 30 miles from coal pits, but he knew at French pit props were landed at the pit mouth at less rate than it cost him to get his own there, though e was so few miles away. The varying colour of larch ad been mentioned by Mr. Anderson. The variation as principally due to the soil and age of the tree. The neven growth which Mr. Cragg had referred to was artly traceable to the method of propagation, and he ould like to point out to everybody who wanted to row trees the advisability of raising them at home rom seed. Not only would the grower acquire a reat deal more knowledge of what trees were, but e would have the enormous advantage of being ble to select the seed from good parents. The verage nurseryman of the present time seemed to be erfectly indifferent what trees his seeds came from, so ong as they would grow in the nursery.

He felt quite certain, from his own experiments, hat to grow trees to the best advantage the seeds hould be selected. Though of course one could not qual the results that nurserymen got, with their expeience and on their selected land, and could not probably roduce them so cheaply, yet, in the end, it must surely e better worth while to pay 1*s.* for a seedling tree that ould grow to be worth £10 than to have one for a penny hat would languish and die. A large proportion of the ought trees died when taken out of the fertile sandy soil of he nursery, and put into such land as he had to deal with.

He had not been convinced by Mr. Watney with regard to the prospect of a timber famine. He quite admitted that it might not be so imminent as some people said, and the possibility of tapping sources of supply, at present inaccessible, must not be lost sight of; but he had yet to find an accessible country where timber had not been to some extent exported. Where it was not marketable it was frequently burnt on the ground.

The amount of timber thus destroyed was much greater than the amount felled for use. That was particularly noticeable in countries like Russia and America, which had, or have, the greatest surplus. It was now the fact that American oak, which was very nice stuff to look at, could be bought in England for much less than English oak was worth in the same place, after allowing a fair price for the cost of growing and handling it, plus the railway carriage. How long was that to last?

The last time he was in America, nine years ago, there were millions of acres of forest then standing, and at that time inaccesible for want of means of transport, which are now being denuded of their most valuable timber. He was offered 160,000 acres of virgin forest in North Carolina, with a good title, at a dollar an acre. If only one tree per acre could have been extracted at a reasonable profit, the freehold would have been left for nothing; at that time, however, there was no means of getting it out. Now, he believed that the whole of that land had been taken up by lumber companies, and that sort of thing was going on at an increasing rate in every accessible forest in the United States. The best trees of the two most valuable hardwoods in the States, Black Walnut and Black Cherry, were almost exhausted and

or years past no White Pine had come to England equal n quality to what was formerly exported. All the best uthorities in the United States agreed that the timber vas being felled, burned, and wasted, faster than it grew. The same condition of things applied to the Oak forests rom which our former supplies of Riga Oak had been aken, and to the forests of South Eastern Europe which which were now being rapidly exploited. Northern Europe, Australia, and the North West Coast of America vere perhaps the only countries from which very large upplies of valuable timber could be expected at a reasonble rate in the not very distant future; and wherever e had been in Scandinavia he found that the virgin orest was almost a thing of the past. Even if timber ontinued to come in equal quantities from the exporting ountries, its price must be very largely increased.

With regard to what Mr. Marshall and Mr. Stenning aid about "extraordinary traffic," the judgment which ad recently been delivered seemed to show an entire nisapprehension on the part of the judge as to the onditions under which this so-called "extraordinary traffic" arose. It was perfectly obvious that if one aid rates for 100 years and made little use of the roads, which was what many estates had been doing, and then rought the timber into the market in one year, though t might be very inconvenient for the local road surveyor, et on the other hand, if timber-hauling was done every ear more damage must occur than by taking it all off t once. He should think it desirable to have the question settled with the County Councils before selling.

He was not intending to throw cold water upon he valuable efforts which Dr. Schlich had made (and which were now beginning to bear fruit) to demonstrate o the average landowner that he had in many cases not

been making the best of his woodlands, but at the same time he must differ from him on some points. He certainly did not allude to Dr. Schlich when he referred to the "gentlemen whose knowledge of scientific forestry "on paper was much greater than their knowledge of "practical estate management." Undoubtedly the conditions in England were vastly different from those he had himself seen prevailing on the continent. He was not speaking from a fortnight's trip to Germany; he had spent some of the best ten years of his life in what might be thought an unprofitable amusement, hunting big game in different parts of Europe, and he had always kept his eyes open for anything he could learn that would help him in planting at home. He found the conditions of climate, labour, railway carriage, and protection were all so completely different that it was impossible to attempt to do here the things that were done there, though one might learn some good lessons from foreign forestry.

There was another point that he felt certain neither Dr. Schlich nor any of those whom he would venture to call the Scientific Forestry School had realised. Almost every condition under which our English woodcraft had been developed had disappeared. Formerly they wanted underwood and they wanted crooked oak knees for shipbuilding. There were old books with complete and accurate instructions how to top and tie down the branches of oaks so as to produce a tree the very opposite of what a modern forester would say was a desirable one.

It did not seem to be fully realised that the whole basis of the industry had been completely changed. As he had tried to point out in his Paper, underwood was formerly the thing which brought in the most. All

over the southern counties it was the underwood that paid the rent, not the timber, which was a sort of by-product. Now all that was changed.

He would like anyone who thought we could not grow fine timber in England to look at the photographs on the table, which showed trees of gigantic size clean to a very good height, and he considered there was no other country that could produce better timber. Where those oaks were grown he did not think the land had now any great value for arable purposes, but as grass it might be worth from 8*s.* to 15*s.* an acre, and yet those magnificent oaks had been grown and were being grown now upon it. They were probably grown with beech.

He had seen at Thoresby Park a most valuable proof of the truth of what Dr. Schlich had said as to the advantage of growing beech with oak. In the case of a wood of very fine beech and oak, the beech trees had blown down on one side, and the consequence was that where the beech mould had drifted away there was no longer its nourishment on that side, and the tops of the oaks were all dead, whereas on the other side they were all growing luxuriantly. With regard to the question of the quality of British timber, he should like to quote one passage from a letter he had received from Mr. S. Margerison, of Leeds, an English timber merchant of great experience: 'I have handled British fir and pine equal to the best 'foreign, and on the other hand I have seen foreign as 'poor as the worst grown British, but I have never seen 'foreign oak and ash equal to the best British."

With regard to Japanese larch, Prof. Sargent told him he never saw a Japanese larch in Japan that could be called a large timber tree. They only reached about 50 to 60 feet in height; but he admitted there is another

larch in North Japan and Saghalien different from L. Leptolepis that does grow to a great height. We had not had it in sufficient quantity to try it as a commercial tree, and he should most carefully warn people against planting the common Japanese larch on a large scale until they were quite sure how it would turn out. It might seem to be less liable to disease at the first start, but those now planted were grown from healthy trees, whereas the ordinary larch was often raised from diseased trees.

With regard to what Dr. Schlich had said as to the value of Douglas fir, he did not dispute that under certain very favourable conditions of soil and climate, rarely found except in the North of England and Scotland, it would produce a greater bulk of good timber than perhaps any other known tree except black poplar, yet the value of this home-grown timber, as compared with that imported from the Pacific, remained to be proved, and he did not think that land good enough to keep it closely crowded for a long enough period to make a fair comparison possible would often be found in England.

He would rather stick to oak, ash, and larch and hoped that by care in seed selection, and choosing favourable soils and situations, and by using the beech as a nurse to a much greater extent than was usually done, the larch, the most valuable of all our forest trees might be restored, to some extent at least, to health, and though he had advised experiments on a larger scale with many other trees, the safest rule to follow was to plant largely what would grow best and sell best in the district.

He would have liked, if there had been time, to refer more fully to Mr. Stenning's remarks, which were most

ctical and very much to the point, as might be expected m a timber merchant of his eminence. It had been ery great pleasure and advantage to himself to pre- e the Paper. One hesitated to come before experts e the Members of The Institution and talk about tters outside one's own knowledge, and he had tried keep strictly to facts with which he was personally uainted. Previous speakers had pointed to several es that he had not discussed, such as the yew and willow, and no less a person than Sir Joseph oker had pointed out that he had not mentioned acacia, a tree of which Cobbett, in 1820, sowed lions, though it had been in the country long ore his time. Where were those acacias now? He not been able to find many, dating from Cobbett's e, that were not rotten at heart. Acacia should grown on hot sandy soil, and cut as soon as it thick enough to make a gate-post. Used thus, was a most admirable tree, but if allowed to d long enough to make a big tree it would be ost always rotten at heart. He knew the yew was most indestructible of timber, and, when properly and polished, about the most beautiful of English ds. He had been all over London, to furniture and inet makers and timber merchants and could only a single bit of yew timber in a dry enough state to nor could he find a single man who had ever made p except among the chairmakers of Bucks.. That an example of the way in which some of our trees been neglected.

If yews attained any size they were most deceptive gs. The sounder they looked outside the more ain they were to have great holes in the middle. t was why Mr. Cowper Coles said yew should be

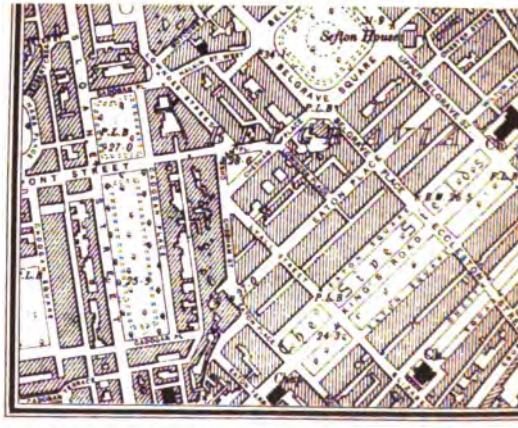
used with the bark on. The sap wood appeared to be the most durable part of the whole tree—exactly the contrary to what was the case with most other trees.

In conclusion, he could only hope that some means would be taken to bring these facts, which foresters knew and the public did not, before Parliament, before the County Councils, and the landowners for whom members of The Institution acted, in such a way that they would not be soon lost sight of. The first thing requisite to get landowners to improve the management of the existing woods, and increase the area of their plantations, was to let them feel they were being fairly dealt with, instead of feeling, as he felt now, that English timber did not get fair play.

The PRESIDENT said he believed the members would regret that Mr. Elwes' Paper had not been the first of the session, so that they might have gone on discussing its many interesting details at many meetings in succession, for it was truly a subject which had no end. He was very glad to hear there were those who agreed that the finest oak was only to be produced by sowing the acorn. He had found by experience that a good long tap root was essential to producing a well-grown oak.

He was sure all present would enthusiastically join with him in expressing their great indebtedness to Mr. Elwes for having prepared this Paper, and for attending that evening to give them the benefit of the great knowledge of the subject which he had acquired by practical experience.

The Meeting then adjourned.



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APER 296.
No. 467.

LONDON STREETS AND STREET TRAFFIC.

By T. BLASHILL (Fellow).

Read at the Ordinary General Meeting of The Surveyors' Institution *on Monday*, 18th *April*, 1904.

Albert Buck (President) in the Chair.

The problem of street traffic—so full of detail, so mplicated—interests the surveyor in all its aspects. ne capacity of existing thoroughfares, the determina- on of new routes, the acquisition of land and buildings ith trade interests, the utilisation of new frontages, the fect of proposed schemes on a neighbourhood, concern l surveyors more or less. To the municipal surveyor e subject opens up wide questions of finance and ublic policy, of the nature and growth of traffic, means transport far and near, street paving and cleansing, structions in thoroughfares, and interference with rface and subsoil. To deal here, even in a summary ay, with these diverse but inseparable questions, we ust discard ancient histories, however interesting, and er clear of side issues, however tempting, and, alas! e must leave unsampled the harvest of statistics which ell-meaning folks have gathered and heaped up for us essays and reports and books and solemn evidence. ut, even as I write, a Royal Commission is sitting which ill, no doubt, extract from the compilers of such statis- cs everything that I here regretfully omit.

We shall approach this question differently according to our experience and responsibility. Everybody allows that reform in London thoroughfares is urgent; but the cost is heavy, and it should be clearly shown that each particular project is called for, and is worth while. We require to get about the streets of London quickly easily, comfortably, safely and cheaply. As regards public conveyances, we prefer to be picked up wherever we may happen to be and set down exactly where we want to go. All means, from first to last, that are worth their cost must tend in that direction. We do not want a new London, however well laid out; probably not many districts require to be rebuilt, and I am sure that we do not want half nor a quarter of the new streets through old neighbourhoods that some enthusiastic projectors have indicated. We want first of all the removal of obstacles. If in considering these questions I must make references to the past, they shall be neither very numerous nor unreasonably antique.

Something over fifty years ago I was shown a line of ruins in the City over which the new Cannon Street was being made. Then the great stream of traffic east and west was squeezing through the unwidened bottleneck of the Poultry and onward over pavements rough and unclean, much of it going up and down gradients now unknown in Central London. New London Bridge and the route by Moorgate Street were then quite recent; Regent Street and Trafalgar Square might then have been called modern. But we may limit our retrospection to the last 40 years, a period well within living memory and possessing a special interest as regards population and traffic.

For a long time back the population of London has gone on doubling every 40 years. In some such period

new generation becomes weary of the increasing ressure of the traffic, which in certain places grows ur times as fast as the population, and anxious to try me new remedy of its own. It happened nearly) years ago that, upon some such periodical awaken-g of public sentiment, I had the privilege of assisting y friend Colonel Haywood, our late Fellow, then the gineer to the City Sewers Commission, in the inquiries hich resulted in his Report of 1867 to the Court of ommon Council on the Traffic and Improvements of the ity. That Report has influenced all succeeding investi-tors and projectors, and I believe the great advantage d the pleasure of working with its author in that ld, laid me open to the temptation that has brought e here to-night.

Among the considerations in that Report was the estion how far modern arrangements for facilitating affic met the increase in its volume. And it appeared at, however great the temporary benefit might seem, e effect of all such arrangements quickly disappeared, d within a very short time the crowding was greater an before. Indeed the things which might seem to nder such crowding less necessary, greatly increased e throng by facilitating business. Cheap postage d the telegraph were then fairly developed, but the cessity for transacting business in person had caused e traffic to outgrow all former records. I believe that ore recent experience confirms this evidence.

Since Haywood's Report, the following important orks for facilitating the traffic in Central London have en carried out:

The Holborn Valley Improvement.
Queen Victoria Street.
The Victoria Embankment.

Shaftesbury Avenue.
Charing Cross Road.
Clerkenwell Road.
Rosebery Avenue.
The Tower Bridge.
The widening and extension of Eastcheap to Tower Hill.

The Tower Bridge was first advocated by Haywood. Its approaches are, however, much less developed than he desired; but all the other schemes are complete and answering the purpose for which they were expressly designed. Nor is this all. The "Inner Circle" has been completed by the formation of the District Railway, which has an enormous passenger traffic, and the Tube railways are carrying their hundreds of thousands—all this without much noticeable effect on the traffic of the streets; indeed the overcrowding of particular thoroughfares and the blocks at crossings are worse than before. This is the state of things which we have to consider and try to remedy.

Among the remedies that suggest themselves I have put the removal of obstacles in the first place. Let us remember that we are dealing with the King's highway. At present I will not admit that any power or interest ought to override its paramount importance. Whatever we may say about the subsoil, the surface of the roadway does not belong unconditionally to the frontager more than to anyone else. It does not belong to the ratepayers, as such, nor to the Local Council whose duty is to take care of it and keep it clean; and whatever works the Local Authority may have to execute upon it, they are bound to bear in mind that it is dedicated to the general public and not to those of their locality alone.

Beginning with the highway itself, we may notice the way in which streets are constantly being broken up by the companies who have acquired powers in respect of underground pipes, and by the Borough Councils for repaving and for work to sewers. The companies are bound to give notice to the local authorities except in cases of emergency, but it is stated that on the thousand of occasions per annum upon which, in every metropolitan borough, they interfere with the roadway, they never give any notice, and as the authorities would have no power of refusal the companies may consider that no useful object would be served by a compliance with the law. There is a story current of a couple of navvies having been directed, for a wager, to go and dig a hole in the centre of a busy main route. Nobody troubled them for their authority; the police turned the traffic for them and when they had dug their hole they left it for the police to watch and the public authority to fill up. I was disposed to contradict this, but the engineer, whom I most regard, assured me that it might well have happened in his borough. I am not sure that there is any remedy for this, short of empowering the Borough Councils to do all the work on the roadways and to charge the cost to the parties concerned. And that might be the beginning of a reform that we may hope to see in the system of carrying on works in the public ways.

Under present conditions, the workmen start in the morning with the early traffic and leave off when the streets begin to clear. They observe church festivals and days of thanksgiving and bank holidays and extra holidays and half holidays, as if there was no sort of hurry, though the traffic may be crawling in single file or losing ill-spared time in side streets. All such work

in important streets should be carried on continuously, night and day, let us say by three gangs, (hours and wages being suitably arranged) sheltered, when necessary, from rain and snow, whether working for a company or for the Public Authority.

I saw the first experimental specimens of modern street pavements put down, and hope to see the last of the old granite which they are superseding. Whatever the respective merits of wood and asphalt they have this in common—each is laid on a permanent foundation, each is in fact a wearing surface to the permanent road on which it is laid. Several of our members are authorities on such pavements, and can perhaps tell us whether we have come to an end of human endeavour in that direction. I have some doubt on that point. If we were dealing with a gravel footway, somewhat worn, we should now give it a good coat of hot pitch covered with coarse grit well rolled in, repeating the process two or three times, and upon fresh signs of wear repeating it again. This would maintain perhaps for an unlimited time a wearing surface having the best qualities of asphalt. If I were an inventor I should look out for some material for covering a permanent foundation by a thin layer that could be applied or renewed in a night without disturbing the traffic; something that would form a tough elastic skin, rougher than asphalt under the hoof—if horses are still to be used—and smoother than wood under the wheel. One can easily imagine such a renewable skin that would keep the traffic from contact with the pavement beneath. But inventors starve!

Upon the footway of the road dedicated to public use the shopkeeper projects his counter and stands outside serving his customers. Upon the carriage-way small

traders seek their livelihood and costermongers set up their stalls, the police being advised that their power over these obstructions is doubtful. But, if doubtful, they might reasonably get its legality settled by the proper tribunal. When one of our Borough Councils found courage to take a case before a magistrate, they were successful, and some of their main thoroughfares were cleared and restored to public use. Persons responsible for the maintainance of wholesome regulations are sometimes unreasonably afraid of losing a case in Court, when the fact of such loss may be the best evidence to bring before Parliament in favour of stronger powers.

Besides such wholly illegitimate occupations of the highway, there is a much more serious obstruction by the frontager whose vehicles are, for a great part of the day, loading or discharging in front of his warehouse or loitering about awaiting their turn. This is a chronic complaint in important thoroughfares. The merchant pays a heavy rent and is a large ratepayer, but a great part of his payments is perhaps due to the unreasonable use which he is making of the public way. If we come to the question of natural or customary right to this privilege there is but little to be said for it. The farmer does not insist on loading and unloading his wagons out on the turnpike road. The suburban manufacturer generally provides yard space ample for such uses. It is only in the crowded town that the frontager, having used up every foot of his site for his works and his storage, relies upon the public way for space to carry on an essential portion of his business. He has not only built over his yard but has been piling up additional stories, so as to double the business formerly possible on the area without adding anything to the ground originally dedicated to the public way. When I have

to pass through a certain street, widened to my knowledge for four lines of vehicles by the purchase of private property, at prices which some of our members could tell, and I see that the vendors of that property are exclusively occupying two out of its four lines, while in the remaining two lines quick and slow traffic mix and crawl or stop outright, this matter assumes a very practical aspect.

I will not suggest that the legitimate use of premises in a business quarter should be hampered by regulations, but hampering regulations exist now when the police limit the time during which a vehicle may wait. The true remedy seems plain. In the narrow streets of Genoa the old palaces have each their indoor court, stone-paved and devoted to all external traffic, and it seems reasonable to suggest that people who need the exclusive use for long periods of room for loading should provide it on their own ground. When we come to consider the probable business vehicle of the future, this matter may prove less serious than it seems. Perhaps an indoor space of a hundred feet superficial that would accommodate a horseless vehicle would answer every ordinary purpose.

This consideration suggests the question whether factories or even warehouses are rightly placed in the central and more crowded parts of London, to which a vast multitude of persons, not at all concerned with business of that class, must frequently resort. This applies most forcibly to factories which get, not only their materials, but their workpeople by hundreds from outside the metropolis. Some 40 years ago I knew a village of cottages and suburban mansions surrounded by green fields which now accommodate a population that sends a member to Parliament. Every morning the

wage-earners rush and scramble and crowd to the train, travelling under very miserable conditions, and distribute themselves largely among the overcrowded factories—gas-lighted and unwholesome, and in imminent risk of fire. Many of these factories could be very beneficially removed to the locality where the workpeople have gone to live, and this is slowly being done. But to decrease the burden of London traffic it is not necessary to get rid of London occupations or of the Londoner. There are large districts, in a middle ring round Central London, where buildings of all kinds are worn out and squalid and ought to be replaced; some by better residences and some by such factories as can most conveniently be retained near to the centres of business, the workpeople being drawn largely from the families that must live near the same centres. As to warehouses where goods are stored in bulk for sale, it is very questionable whether all this is really necessary.

In Edward Bellamy's socialistic novelette *Looking Backward*, when the young lady goes out shopping she looks at patterns only, and gives her orders, which are at once transmitted over the wire to the place where the goods are stored in bulk, and when she gets home she finds the parcels sent from thence already arrived. Cannot something more be done by selling wholesale from samples and delivering the goods direct from the distant storehouse or factory, so as to avoid carriage both ways and costly storage in Central London?

There is room for vast improvements in the modes by which the enormously heavy market traffic is carried on. Smithfield Market stands over a network of converging railways by which it was expected to receive its supplies, but only the Great Western makes use of that convenience for its traffic. The great bulk

of the dead meat brought to market still comes by railway vans through the streets. The great roads entering London, and also the inner streets, are still thronged by vans and carts resorting from distant places to the very few centres where markets exist, Covent Garden and Spitalfields Markets blocking the main streets in their vicinity. There may have been some recent improvements, but there is great and ever increasing need for the establishment of new wholesale markets, near to railway stations and accessible from the great roads. A few years ago I visited the chief cities in Germany, where the most modern market arrangements have been adopted. All such towns have their cattle stations with lairs and markets in the outskirts connected with abattoirs in which are spacious halls for the different kinds of animals. There the whole of the processes involved in preparing the meat for the retail markets and the butchers' shops are carried on without the least offence. Nobody would guess that the handsome buildings standing in their clean courtyards were used for their actual purpose. No dead meat can be brought to these towns and no animal can be killed except at those depots.

We are not concerned with questions as to the proper authorities for supplying these and other important public requirements, so long delayed, but if the movement towards decentralisation went on as slowly in other respects, the congestion of traffic in Central London would be intolerable. Following the directions in which all classes have been spreading outwards, the great retail business establishments, the branch banks, churches and chapels, hospitals, theatres and all places of amusement, everything that must keep in touch with the people may be found in the nearer and the outer suburbs,

giving to many of the new centres the accommodation and the appearance of populous country towns. As public institutions, like the Post Office and the Fire Brigade, have obeyed the same instinct, we may live in hope. And when, in the near future, we have the option of talking to friends and to tradespeople and to City agents over the wire without leaving our own houses, the busiest amongst us, and the idlest, and the feeblest and all who need not encumber the routes to the greater business centres will make room for those who must.

There are classes of vehicles obstructive to all other traffic. Steam traction engines are getting more common, as they will convey heavy loads at half the cost of haulage by horses. While legislation has been proceeding rather deliberately with the question of light railways, some genius seems to have discovered that by omitting the flange from the wheel a train of wagons may be drawn upon the public way. At present the largest number so combined is three, but that is probably due to the moderation of the owners. It is difficult to imagine anything more obstructive to ordinary traffic or more likely to cause alarm to horses. A fatality was caused by one of these trains at Hyde Park Corner, and the blame was sought to be laid upon the horses that were alarmed by it. It was called an "accident."

Amongst obstructive vehicles we must class the tramcar, which, however convenient it may be to those riding by it, is quite unsuitable in crowded thoroughfares not specially designed for such traffic. It cannot take up or set down near the kerb. In a wide street its passengers may have to run the risk of crossing in haste a slow line and a quick line of traffic. To compete with the omnibus, the tramcar must go at a greater speed, and a foot passenger crossing the street has to avoid vehicles

going at three different rates of speed, before he reaches a central refuge. To this must be added the complications of motor vehicles great and small, and all that danger has to be repeated before he gets across. The tramcars really require a central landing at each stopping place, and in many cases police assistance for the safety of passengers. The rails are a source of danger to ordinary vehicles, and they very greatly obstruct the driving in crowded thoroughfares. Having spent much time in tramcars, in this country and on the Continent, from their introduction more than 30 years ago, I think they ought not to be extended in our streets, which are becoming more crowded than ever with ordinary traffic, and more obstructed than ever by refuges and lamp standards. But we are probably approaching a time when cars will be run more cheaply without rails.

Among the obstructions by special traffic, that which is due to the crowding of cabs on the routes to railway stations for particular trains is one of the most important. At holiday times there are certain streets that are blocked for long distances. In one residential street there have been counted, about four in the morning, seventy-five cabs in a quarter of an hour, racing from early trains. I have heard of no remedy for this, but I suggest that a remedy may very soon come without our help.

The electrification of short lines of railway will soon be copied by the longer routes. It appears that, on the new system, each carriage will be provided with its separate motor, and when that comes to pass there will be an end to the necessity for long trains. Long trains were due to the discovery that the wheels of an engine would take such hold on the rails that a number of carriages might be drawn behind it as had already been

done by horse traction. When we adopt the principle of "one carriage one motor" the carriages may follow each other at intervals on our longest routes, just as one tramcar follows another in the street. The railway carriage of the future will be self-complete, with buffer compartments holding luggage fore and aft, and there will no longer be a chance of great catastrophes from the "telescoping" of many carriages. As a matter of convenience, three or four carriages may be combined into a train sent off, say for Liverpool or Aberdeen, every quarter of an hour. But time-tables will become almost superfluous. You will drive to the station, not at the time fixed by the company, but at your own time, and take your place in the next available carriage. That will have its effect on the traffic of the streets.

I must not pursue the subject of railway management beyond the points where it affects street traffic, but something more is to be said. We are still suffering—after 70 years—from the timorous steps by which the great railway companies first approached London, halting at such remote places as Chalk Farm and Nine Elms and Bricklayers' Arms and Shoreditch. Had they waited a few years each one would have placed its terminus on the side of London furthest from its line and picked up its passengers *en route*. Ever since they were thought to have actually come into touch with the metropolis, they have been struggling to get nearer the great centres. A good many years ago, before a Parliamentary Committee on some small line or branch, as to which the South Eastern and the London and Brighton were in competition, I heard the manager of the South Eastern tell them that when Cannon Street should be opened, London Bridge would be nowhere. But we are coming to a time when no particular station will be

anywhere. When this maze of underground railways now under construction becomes organised into a system you will not drive to Euston or to Cannon Street or Victoria, or even to Moorgate Street. You will drive, or more probably walk, to some neighbouring underground station, and find a long distance main line carriage that will pick up its local passengers and take its proper place in the continuous procession along the main line. And what happens with passengers will happen with goods, the receiving offices for which ought to be at many stations on the system of underground lines, from which they will be sent without encumbering the streets.

I am endeavouring to indicate an improved condition of things which in part might be brought about at once, and in part may have to await a not very distant future. If we were Hindoos I would invoke their Elephant-headed Deity, the Remover of Obstacles, whose image ought to be set up over the doorway and in the inner chambers of all municipal buildings, and for aught I know of imperial buildings as well. After all, the greatest obstacles to traffic arise from the way in which the traffic itself is carried on.

With regard to moving vehicles, or such as are supposed to be on the move, we are arrived at a time when new conditions must enter into any consideration of the future. Less than ten years ago, a motor vehicle was a curiosity in London. We were then behind the age, but we are making up for lost time. If motorists would confine their experiments in speed to racing tracks or solitary roads, if they would take more care to keep out of police courts and coroners' courts, we might safely reckon that in ten years more the motor vehicle would be the most popular, and the most economical, and the

most common mode of conveyance, whether for passengers or for goods. Whenever this happens, the effect will be something of which few people dream. Let us glance at some of the effects that we may expect in the near future.

I have long doubted in secret my right to obstruct some seven yards in length of the roadway with cab and horse every time I choose to ride in that way. A motor cab obstructs little more than two-thirds of that length, and so with the motor victoria and landau and omnibus and tradesman's cart and van. When these vehicles become so numerous as to dominate the traffic, the speed of all vehicles using principal streets will be fixed at a rate uniformly high, and all slower vehicles will be turned into side streets. From my own observations there are very few roads which, except at crossings, would be insufficient for their traffic were it not for the mixture of slow with quick traffic. If every vehicle were now decreased in length by one-third, the capacity of every street would be practically increased in nearly that proportion. There would be no struggle to pass, as the need for one vehicle to pass another is due to the difference in the pace of horses and the difference in the weight of their loads. With motor traction light and heavy traffic, subject to a few exceptional loads, would go at the same rate and use the same track. We are not concerned with streets of ample width where quick traffic can go its own pace, but with crowded streets, where even the quickest traffic goes not faster than an average of six miles an hour and probably not faster than four miles, while the slow traffic goes rather under three miles an hour.

We must not forget the foot passenger, who has equal rights to the public way, but he would no doubt

have to be more wary at crossings and less leisurely in general. Still his powers of speed must be considered. I do not care whether we say that the vehicular traffic might go, when uninterrupted, at eight or ten miles an hour, or an average of nine. For myself I have barred dry combinations of figures, but I may suggest a sum.

Given one line crowded with traffic going at six miles an hour, and another line at three miles an hour, how much will the capacity of the street be increased if all the vehicles are shortened by one third, and both lines of traffic move at nine miles an hour?

If this were put into proper shape and set to the students of this Institution at one of its qualifying examinations, it would doubtless bring out an increase of capacity which would render additional thoroughfares and widenings needless, so far as traffic is concerned, for a generation to come.

But whatever may be said about delays and facilities in respect of ordinary street traffic, that which forces itself most into prominence is the obstruction caused at the crossings of important thoroughfares. There may not be very many places where one is liable to be delayed for more than half a minute, but a distinct period of stoppage is easy to recognise, though it is probably of less real consequence than the continuous delays along the ordinary route. It is unforeseen and not allowed for in calculating the length of our drive, and if we lose an appointment, it is a definite something on which to fasten the blame.

The most obvious way of facilitating the crossing of two streams of traffic is to marshal the vehicles in two lines, and thus to reduce the length of stoppage by one-half. If the delay is still too great something further must be done. A considerable number of vehicles moving

orth and south, with others moving east and west, upon n open plain, would pass without any sensible delay, by preading out so as to take plenty of room and by some ttle skill in driving. The nearest approach we can ake to this condition is the formation of a circus, like t. George's Circus in the Borough, and Piccadilly Circus nd Oxford Circus. This idea was adopted by Haywood t Holborn Circus and afterwards at Ludgate Circus. t the first of these there is never any obstruction, but t Ludgate Circus, which is obstructed by monuments nd other obstacles, the crossing traffic is much more erious, and calls for some further remedy.

Another great remedy, applicable to all the over-rowded crossings, is the dispersing of the traffic by the rovision of new routes or the greater utilisation of xisting streets for particular classes of vehicles. There re many lines of thoroughfare, little used, along which ow traffic might be directed, and there are useful routes y which omnibus traffic might travel, instead of concen-rating at a few points and actually creating this par-icular kind of obstruction. Indeed, the great principle o be kept in view is the dispersing of traffic so as to revent its concentration at a few spots. It is only when ll such plans fail that one turns to the more serious xpedients of new thoroughfares, and the bridges and unnels which are so easy to suggest and so difficult to dopt.

The Holborn Viaduct, designed in 1863 and opened in 869, actually effects the crossing at an upper and a ower level of two streams of traffic, but that was not its riginating purpose, and the Farringdon Road traffic vas then nothing. It was made principally to do away vith the steep gradients going down into the Fleet Valley. 'hose who remember the halt of the omnibus at the Old

Bailey, the grinding of the shoe down the gradient of 1 in 22 in Skinner Street, and the slow and stumbling climb up Holborn Hill, which then rose at 1 in 18, will think the level surface of the Viaduct a sufficient justification of the cost. So far as the provision of bridges is effected by questions of gradient, we may avail ourselves of the precedents of that improvement.

The gradients calculated for the streets connected with the Viaduct were generally 1 in 45, a slope down which light traffic can go without danger and up which heavy traffic can be drawn without difficulty. One or two streets of less consequence were made 1 in 40, which is good enough for them. Everybody admits, however, that a gradient so steep as 1 in 30 might be adopted for short distances in case of need, but if we are to have bridges or tunnels in place of level crossings steeper gradients may have to be considered. I have driven over good roads with gradients worse than 1 in 15, and in electric trams over gradients of 1 in 8—I believe a slope of 1 in 6 is actually in use. The long gradients down to the Blackwall Tunnel are 1 in 34. In all ordinary cases it would be easy to direct heavy traffic along some alternative route, so that gradients of even less than 1 in 30 might be adopted where necessary. We will bear this in mind when we come to particular cases.

If I select a district by which to illustrate certain classes of improvements, it is because it contains a sufficient number of cases where such schemes are required, and because it is so well known that the references to it can be easily followed. I do not suggest that it needs no other improvement.

The district lying between the Thames and the great boulevard formed by the City Road, Euston Road, and

Marylebone Road, and extending from St. Paul's on the east to Kensington on the west, will supply the few cases which seem necessary for illustrating what I have to say. It is central, it contains our principal parks, our finest streets and squares and public buildings and residences and business premises and places of amusement; it contains also neighbourhoods so mean that they ought not to exist in any town great or small. Except for these, it might stand by itself for a capital city of the first class. Those who frequent it include the highest in position, near neighbours of the lowest. Of public improvements it may be thought to have had its share—Regent Street, Shaftesbury Avenue, Charing Cross Road, Rosebery Avenue, the Thames Embankment, Queen Victoria Street, and the Holborn Valley Improvement—soon to be followed by the new streets between Holborn and the Strand. But yet one is struck by the fewness of the main lines of thoroughfare. Large areas, not always poor, are without any important street and without omnibus routes. The passenger traffic of these neglected areas is dependent for public vehicles on the main thoroughfares outside.

If our royal parks within this area were in any large continental capital they would be the resort of parties of pleasure and crowds of all classes, attracted partly by games for the children, refreshment rooms and concert halls for the elders, and the music of many bands. Those who go to our parks simply for enjoyment are so few that we need take little account of them or their diversions. Yet there is an influential section of the public so watchful over the turf and trees, even down to an individual branch or twig, that I hardly like to suggest anything which may offend their susceptibilities. But from Kensington on the west to

Whitehall on the east there is a length of three miles—chiefly park and garden—with only one unrestricted route across it—that by Park Lane and Grosvenor Place.

There was not long ago a wealthy nobleman of insufficiently appreciated genius who made spacious tunnels under his park, dry and well lighted, along which I have walked in comfort by day and by night. If we may not make a new road across Hyde Park or improve such road as exists, there would be no difficulty in forming a tunnel under it or under Kensington Gardens for the relief of the traffic at Kensington, at the Marble Arch, and at Hyde Park Corner. I am not sure how a road from the space in front of Buckingham Palace across the Green Park and Piccadilly, as far as Curzon Street and beyond to Grosvenor Square and Berkeley Square, would affect the amenities of the King's palace and the new arrangements thereabout, but it would be convenient for the traffic, and the levels would allow of its being carried by a tunnel under Piccadilly, greatly to the relief of existing routes.

There seems no reason why all the traffic going by Regent Street and Pall Mall towards Westminster, should go round by Whitehall, which with all its width is overcrowded. A carriage-way could be formed passing in two branches on each side of the Duke of York's Column on to Storey's Gate and to Victoria Street.

I will assume that the new Kingsway will fulfil all present requirements of the north and south traffic between Holborn and the Strand.

With regard to the east and west traffic south of Holborn and Oxford Street, two or three routes need to be formed, chiefly by utilizing existing streets. A very useful thoroughfare might be made in relief of the

Strand by widening the line of Chandos Street and Tavistock Street as far as Kingsway.

A very useful tunnel, easy to make, has been suggested by Sir John Wolfe Barry to take a portion of the traffic from Knightsbridge to Piccadilly at the western angle of the Green Park. Other suggestions have been made of a road in relief of Piccadilly, to go the length of the Green Park to a junction with Pall Mall. No doubt the addition of a large amount of general traffic to that of Pall Mall would diminish the comfort of those who resort to that thoroughfare; but if no one is to be put to inconvenience, and no important building is to be removed, it is hard to see how the difficulties of London traffic are to be diminished.

The main line of Piccadilly, extending by Coventry Street and Long Acre to Lincoln's Inn Fields, must form an important portion of any improved route towards the City in relief of the line of Oxford Street and Holborn. Arrived at Lincoln's Inn Fields, one may contemplate the obstacles which old and new structures combine to place in the way of improved routes for traffic. Some 30 years ago the London Chatham and Dover Railway, by its high and low level lines, for ever destroyed the chance of getting a new route into the City between Ludgate Hill and Holborn. But Lincoln's Inn also stands across the way. An autocrat would make an example by driving a road through that Inn of Court to the wide part of Holborn near Gray's Inn Road, or to Holborn Circus. The Holborn Viaduct, a route never blocked or overcrowded, would take this traffic and transmit it to Newgate Street, which, however, we know to be quite inadequate for that which it already has. Here we must extend our observation eastward.

To remedy this block, which continues through the

City, Haywood, about 1865, proposed a new street from St. Sepulchres Church to run north of the Guildhall as far as the Whitechapel Road. Everybody has spoken well of it: some projects embody it, but no steps have been taken to carry it out. Perhaps the sacrifice of the coal tax is chiefly accountable for this. But since 1865 many obstacles in the shape of important buildings have been rising in its path. It would have taken all the through traffic clear of the busy City streets, and would have facilitated access to the City very materially at many points. Moreover, the proposed route from Holborn Viaduct to the Whitechapel Road would have been shorter by one-fifteenth of a mile than the route by Newgate Street, Cheapside, and Cornhill. I think that a scheme proposed by such an authority and possessing such strong recommendations, deserved much more serious attention than it received.

No doubt the obstacles to its adoption were very great, and have increased considerably. But there is at the present moment an opportunity for making a beginning. On the vacant land of the Christ Hospital site, now about to be shared by the Post Office and St. Bartholomew's Hospital, a part of this proposed road might be made so as to divide the Post Office land from the Hospital land, giving and taking where necessary, as the Hospital is about to be rebuilt. The route could easily be carried as far as Little Britain, and on to Aldersgate Street, which would be one-seventh of the whole line, and an exceedingly useful thoroughfare in itself. Then we should come to extremely costly property, consisting of City warehouses as far as Moorgate Street, City offices as far as Bishopsgate Street, and the closely packed quarter, which needs to be opened up, between Bishopsgate and Whitechapel High

Street. One would prefer to avoid friction with the Post Office, but I have not the least doubt that under the circumstances an autocrat would give precedence to the claims of the King's highway, and deal summarily with all other obstacles, whether private or public. I think we shall see that such a road is particularly called for, though its exact line may not now be practicable.

Failing this route, so near to business centres, I suggest as worth consideration, a line somewhat further north. Starting from Holborn Circus it would go down Charterhouse Street, the gradient of which is excellent, being 1 in 45, and crossing the Farringdon Road would proceed along the north side of the Corporation Meat and Poultry Markets, striking the line of the Metropolitan Railway at Aldersgate station. Then the road would be formed above the railway at the level of the streets by Moorgate Street through Finsbury Circus, and would leave the railway at Bishopsgate Station, going straight to the Whitechapel Road as before-mentioned. That scheme might involve the reconstruction of three Metropolitan Stations, and for the public advantage would place the railway line in tunnel, just as the greater part of that line was originally put in tunnel for the advantage of the railway company. The length from Holborn Circus to Whitechapel would be a mile and two-thirds, which is exactly the same length as the route by the Post Office and the Bank. It would pass in front of the Broad Street and Liverpool Street Stations, would relieve all the streets on the north of the City, and might lead to a better direction of the northern traffic towards the Tower Bridge. It would be of ample width for its traffic; while the existing route is so overcrowded that through traffic ought to be forbidden. But before forbidding the passage of vehicles where they require to go, some such substitute

as I have indicated must be provided. I refrain from confident predictions as to cost. The structural works over the railway route would be heavy, but I expect the cost of property would be comparatively light.

Having had occasion to consider the question of traffic north and south through the City and the relief of London Bridge, let me say what I have thought should be done rather than that which has recently been proposed in Parliament. Reduce the height of Southwark Bridge as much as possible and get, if you can, the advantage of a foot or two feet at Upper Thames Street. Then form a new route in tunnel on the east side of Queen Street passing under Cannon Street, Queen Victoria Street, and Cheapside, and rising to the level of Gresham Street. I think this could be done by slightly lowering the line of the District Railway; if not, the road must be carried on the surface. If no more should be done at first than to widen Gresham Street and the bit of Lothbury, to a junction with Moorgate Street at the northern corner of the Bank, there would be formed a good route, rather shorter to the Elephant and Castle than that by London Bridge, and with gradients better throughout than the existing gradients of Southwark Bridge.

I doubt if there would now be any block of traffic at the Bank, were it not for the great number of omnibuses. If these new routes should be made, the omnibuses going east and west might be invited to go by the new northern route, or by Cannon Street, and those going north and south might be turned from Moorgate Street towards Southwark Bridge. The two great routes crossing at the Bank might be closed to omnibus traffic, and passengers would get down at the points nearest their destination and walk, as railway passengers have

always done without serious complaint. But if this should be thought too hard a measure, or likely to cause a greater use of cabs, a substantial municipal tax might be placed on every omnibus admitted to the congested area, which would result in an extra fare sufficient to limit the passengers to such as really need that accommodation.

There are a few places—I think very few—where bridges or tunnels seem to be desirable for preventing blocks at crossings. If the two thoroughfares are on a level, and the height between the lower road and the surface of the upper road must be nineteen feet, and if the gradient must be so good as 1 in 30 there will be slopes up and down along which property must be bought on both sides of the thoroughfares, for a length of at least 380 yards, and there will be necessary modifications of side streets. We shall submit to a difficult crossing for a long while before adopting so costly a remedy.

After the block at the Bank, one of the worst crossing places is Ludgate Circus, where the bridge sometimes suggested does not seem practicable. I do not think it is generally known that the old Fleet River runs through Farringdon Street in two branches. It might be necessary to widen and lengthen the space between these two sewers, in order to make a sunk roadway from Farringdon Street to New Bridge Street to take the north and south traffic under that going by Fleet Street and Ludgate Hill. I think this is the most promising scheme for that particular place.

Another place where a bridge has been suggested is the crossing of the route to Waterloo Bridge with the Strand, and that may at some time be necessary. Bridges are very costly objects, and as they are a good deal criticised

just now, so prominent a structure over a main thoroughfare might not meet with universal approval. But the project of a new route over the Thames in continuation of the eastern arm of the new Aldwich is so reasonable upon general considerations that we may expect to see the difficulty at Waterloo Bridge reduced to reasonable dimensions in that way.

The last question of local interest that I shall notice is the traffic of Oxford Street and Holborn, and the densely-populated districts on both sides. This long thorougfare is well filled with traffic along the whole line, and there is a very large cross traffic, including that from the great railway termini on the north. But between the Marble Arch and Gray's Inn Road, a distance of over two miles, there are only four crossing places of any importance, and the great bulk of the traffic crosses at two places, Regent Circus and Tottenham Court Road. There are large areas an both sides with no good main street and without any omnibus. The remedy seems to be to make the crossing places more numerous, and to see that the omnibus traverses these neglected areas. That could be done if the County Council had this service in its hands, let us say by establishing a long route from the Marble Arch, along Wigmore Street and Goodge Street, in the direction of King's Cross, and also in the direction of Clerkenwell. I may notice here a proposal made by Sir John Wolfe Barry in his address on "The Streets and Traffic of London," read before the Society of Arts in November, 1898. He would make a new street from near the southern end of the Edgware Road and continuing in a direction generally parallel with Oxford Street and Holborn as far as the Farringdon Road, beyond which he would proceed by a route somewhat similar to Colonel Haywood's

proposed street on the north of the City as far as the Whitechapel Road. We may hope for the best from smaller improvements, and from underground railways, but it is impossible to say that sooner or later a grand scheme on this principle may not be necessary.

South of Oxford Street there is a great district of mean streets between Regent Street and Shaftesbury Avenue in which a line of thoroughfare running northward to Oxford Street opposite to Great Portland Street would be a very useful improvement, relieving the traffic of Regent Street and at the crossing of Oxford Circus.

For the relief of the traffic crossing Oxford Street at the Tottenham Court Road, a new line of main street might be made from Cambridge Circus by way of Soho Square, crossing Oxford Street near to Rathbone Place, and proceeding northward parallel with Tottenham Court Road across the Euston Road as far as the Cobden Statue, or beyond. There would be no serious difficulty in making this new route dip under Oxford Street and rise to the Euston Road, so as to avoid crossing the traffic of those crowded thoroughfares. From this new road a branch might be taken to run to the Portland Road Station. Such streets as these are indeed necessary to open up the district they would traverse, which consists chiefly of narrow streets with old houses let in tenements, where, I venture to say, we ought to have residences of modern design, and factories giving employment to large numbers of workpeople, who might live further away.

When dealing with the question of the route from Piccadilly towards the City by way of Lincoln's Inn Fields, I did not like to break the thread of my story by another reference arising out of it. The Midland Railway followed precedent by stopping at St. Pancras, there

waiting, as other railways have waited, for passengers to find their way to the trains. I have a strong opinion that the Midland, which is on the high level, ought to run over the Euston Road, and through the district due south, crossing over or under Theobald's Road and over or under Holborn, to a terminus on the north side of Lincoln's Inn Fields. I need not point out the great advantage this would be to a very extensive district, which would be made near to the railway by this means. It would give to the Midland the same advantages as are got in respect of the City by the underground branch to Moorgate Street and there is nothing in the character of the district to render such a line very costly or objectionable.

For as long as I can remember, subways for foot traffic at certain crossing-places have been advocated, but it has generally been considered that persons who hesitate to cross upon the surface, will hesitate still more at the steps and the passage underground. I think this view is correct, but the question has become important since the combination of a railway station with public subways at the Mansion House was authorised. Then, and in more recent cases, Parliament has sanctioned the construction, for the convenience of railway companies, of staircases descending at the edge of the footway, which prevent the stopping of carriages opposite to business premises. This matter ought to be carefully watched by those who are interested in property liable to be affected in this way.

Among our large provincial cities I know of none where so good an example of judicious improvement of the thoroughfares can be seen as that of Kingston-upon-Hull. Five years ago access to its most important business quarters was obstructed, in different directions, by mean surroundings. By clearances on a large

scale, and the formation of six new streets, the central portions of the city have been provided with suitable approaches, the cost being more than covered by the improved value of the surplus land. Let me add that the responsibility for the result was borne by a member of our own profession, Sir Alfred Gelder, who was retained in the office of Mayor during the five years of transition.

The idea of wide thoroughfares, leading from the centre of London out beyond the suburbs, may be something more than a dream. I am not sure that they would be much used by merchants or clerks or workmen going regularly to and fro, when they could go by train in less than half the time; but to walk along a fine road designed for pleasure as much as for traffic would be enjoyed locally perhaps more than a lounge in a park or garden. Princes Avenue at Liverpool leading to Princes Park is an excellent example of such a thoroughfare.

The mention of such spacious routes as places to be walked in for pleasure must remind us of the noble highway with which, in the middle of the eighteenth century, London was partly encircled on the north. The "New Road" from Islington through St. Pancras and Marylebone was intended as a permanent boundary to the buildings of the metropolis. It enclosed spacious fields, and outside its lines streets were not expected to be required. Wide gardens, never to be built over, were left in front of the terraces of houses. The City Road was similarly designed. I need not detail the steps by which large sections of those roads have been spoiled perhaps for ever. I may, however, suggest that a worthy mode of adding to the beauty of the metropolis and also facilitating traffic would be to acquire as much of those spaces as we can, and make that line of route

into something like a boulevard or like the Ring-Strasse of Vienna. This would then form the finest thoroughfare and pleasantest promenade in that large and populous district.

Let us say a word about the police in relation to the traffic, their management of which at particular points is very skilful, and their evidence before the Traffic Commission is specially valuable. There always must be certain places at which passengers have to get out, for the purpose of taking an omnibus belonging to a different line. Such points are like junctions on railways: we want to change as near to the vehicle we have left as possible. But when the omnibus is forbidden to stop nearer to Piccadilly Circus than the eastern side of the Haymarket, or, westward, nearer than the Museum of Geology, it is inconvenient, and passengers are often carried a good way beyond the point at which they want to change. I should say the police are there to see that we can do what we need to do in safety, rather than to make us do something which is inconvenient in order to keep us out of danger. The happy medium is important, though perhaps difficult to find, for even when all suggested improvements in thoroughfares have been made, and all vehicles are brought up to the highest standard, and ourselves also, even in the Millenium, police regulation of traffic will be required—it may indeed be one of the indispensible conditions of that long hoped-for era. Meanwhile, I very heartily agree with the views of the Chief Commissioner, as represented to the Traffic Commission, that the County Council should procure the sanction of all bye-laws and that the police should see that they are observed.

I notice that every advocate of improved transit mixes that question with the housing of the artizan

class, or the poor, as if he thought that the question of traffic needed some outside help. It is a mistake to complicate an important question in this way. We want improved transit for the good of the general public, and we are not likely to get it if we occupy ourselves with other considerations. To devote valuable sites to dwellings that bring heavy charges upon the rates is a serious clog on municipal action in the matter of improved streets which, in my opinion, ought never to have been applied, and has been of no benefit that could not have been got in other ways. Every person of the artizan class that has been rehoused upon the Holborn to Strand Improvement has cost the London County Council £200 through the loss upon land. Every person rehoused "in the vicinity" near the Holborn Town Hall has cost £80. For as long as the obligation to "rehouse" persons displaced for improvements has existed the cost in respect of every person displaced, though not actually rehoused in the new dwellings, has been over £50. A small fortune has thus been spent for every family, and it is impossible to conceive that if such amounts had been handed to the recipients in cash, care being taken that it should not be wasted, they could have been advised to spend the money in this way. It may be that many of the dwellers on the line of this improvement have actually been kept upon or near to the old sites, as was the intention of Parliament, but that object has rarely been attained in such schemes, and has seldom been worth its cost. The most that can be said is that improved accommodation has been provided for a different class of persons coming from a different district. I have a strong opinion that a public authority engaged in improving its district should not be burdened with these very heavy obligations as if they

were private promoters seeking a profitable speculation.

There remain to be noticed four important considerations, each of which deserves all the time that can be given here to one paper—the initiation of large schemes for street improvement, their treatment by Parliament, the acquisition of land, and the way and means.

I am not sure that any outside body, however exalted, could, in the first instance, usefully go beyond inquiries and general recommendations to be considered, and possibly carried out by the municipal authority responsible for their execution. That authority is the London County Council, and if it should be slow to act the local councils closely interested in particular improvements may be expected to spur it on. Questions of the apportionment of taxation between the County Council and the Borough Councils' areas will give rise to disputes that may have to be settled by higher authority, for the metropolis should not suffer from such contentions. We may, however, put some faith in the business capacity of these bodies to render such interference unnecessary.

The progress of a Bill through Parliament must at times suggest to us the question whether it would occur now to any men of affairs to devise that particular method of managing such inquiries. A committee composed of members, some of whom are thoroughly experienced in that particular method, but who, as a body, are without independent professional assistance, listen to the evidence and the eloquence of those who have been thought most qualified to lead them to one decision or to its opposite. If the Bill survives, the process is repeated in another House. If this is a good method one may ask whether a third inquiry would not be better, and so on, should the Bill still survive. In ques-

tions of money, of character, of liberty, of life and death, a jury less qualified is trusted under the highest professional supervision to decide finally. It may be possible, without doing away with the supremacy of Parliament, to weed out matters beneath its consideration and, in matters which it must decide, to hold some preliminary inquiry by independent men qualified to do this and also to assist the Parliamentary Committee.

I suggest that in all cases of compensation the method of arbitration by persons chosen by the parties should be adopted.

We now come to the important question of finance. Perhaps the only scheme very much in the front just now is the taxation of land values, advocated with a view to an increased revenue being raised from the land and applied to public improvements. We have seen in *The Times* the letters of our past Presidents, Mr. Sturge and Sir John Rolleston, and it is possible that in most respects we may agree with those authorities. But it is very singular that so difficult a subject should have so long escaped the serious attention of the persons most competent from their experience to deal with it. And all persons—all bodies—who are engaged in political strife find the matter so simple and so easy to be embodied in resolutions cut and dried. I also have had my ideas, which I will take this opportunity of submitting to your candid consideration.

Some twelve years ago it was my duty to consider and report on that part of this question which deals with the taxation of vacant land which would be used as soon as anyone could see their way to expend capital on buildings. It seemed impossible to say there was nothing in questions such as were being argued then. While the owner of such land slept and waited the

maturity of his building land, others were paying rates to be largely expended upon permanent works necessary to enable the dormant value of this land to be realised. Not only roads, bridges and the like, but Thames Embankments, main drains, and public buildings of all kinds have been undertaken, and are now being paid for out of the municipal rates. There is also the great and costly organisation of a habitable and an orderly city, and for all these things neither he nor his predecessors in title have paid on more than the rateable value of agricultural land. But why should he pay on more than he can realise or enjoy? By selling his land he may no doubt realise the price upon which it is now proposed to rate him, but he could only sell to another man who must keep the land until it is ripe for building, and thus there would simply be a change in the ownership without any realisation of the value of the land as such. My own idea was to wait until the land should be utilised for building, and to rate the owner then in possession, who would be the first to realise the value that had been growing so long. I considered one might then, if at all, lay a charge, in addition to ordinary rates, upon the ground rents, of such an amount, and to continue so long, as might be fair under all the circumstances. This may be heresy in the eyes of some whose judgment I value, but on an occasion like this one has an opportunity for testing ones own judgment, and I have not chosen to let it slip.

I trust that this Paper offers suggestions on most of the points that ought to be raised here in connection with our streets and their traffic. Our members who are interested in different branches of this great question will supply additions and amendments from their own experience. Let us congratulate the more active and the

younger among them on the widened and lengthened prospect of professional responsibility that such inquires may open out. I recognise how large a portion of my allotted time has been spent in showing how many influences may tend towards reducing the obstruction of our congested routes, and how much may be done to render unnecessary new and costly works. I have, indeed, been supplying the easy-going and the reluctant with excuses for sitting still that were perhaps superfluous. But I have also tried to show that, notwithstanding improvements which, at their inception, were thought to be dictated by a far-sighted policy, the growth of traffic has hitherto outstripped all attempts to keep pace with its requirements. We are spectators of a process to which we see no limit. The twelve millions of London citizens with whom we are threatened will be here by their appointed time, and I look forward, with a curiosity that will go unsatisfied, to the occasion when one of our junior members shall read to the President's fortieth successor in the chair his tale of efforts, of shortcomings, and of hope.

Mr. Daniel Watney (Past President) said he felt sure that all present would gladly join him in a very hearty vote of thanks to Mr. Blashill for his able and interesting Paper, which contained so many new and valuable suggestions, and which must have involved an immense amount of care and research in its preparation.

It was impossible adequately to discuss the many details contained in the Paper without first having an opportunity of carefully studying it, and he would therefore ask permission to move, in the name of Mr. Howard Martin, the adjournment of the discussion until the

next Ordinary General Meeting, on Monday, the 16th of May.

Mr. T. M. Rickman (Past President) said that he had listened with very great interest to the Paper in which his old friend Mr. Blashill has dealt with a subject at once complicated in character and of the greatest interest to Surveyors. It was with very great pleasure that he seconded the vote of thanks, in which he was sure the Members present would cordially concur.

The vote of thanks having been put and carried unanimously, the Meeting then adjourned.

AT

THE ORDINARY GENERAL MEETING,

Held on Monday, May 16th, 1904.

ALBERT BUCK (President) in the Chair.

The discussion on the Paper read at the Ordinary General Meeting of April 18th, 1904, by T. Blashill (Fellow) entitled, "London Streets and Street Traffic," was resumed by

Mr. HOWARD MARTIN (Fellow), who said the author of the Paper combined the advantages of a subject of practical interest with literary style and humour in its treatment, and the members felt indebted to Mr. Blashill accordingly.

He understood that, on the whole, Mr. Blashill was of opinion that the enormous expense of recent street improvements would at least considerably delay any others of an ambitious kind. He was afraid that was probably true; but he thought that some of those which Mr. Blashill had mentioned might, at any rate, be very usefully begun, if not completed, by comparatively inexpensive improvements in the way of making connecting links between existing routes.

He did not think that, in the present state of public opinion, we were very likely to see more roads made

across the parks, and he had never seen enough traffic in Cockspur Street and Whitehall to lead one to believe that it was necessary to open a carriage road past the Duke of York's Column and across the Horse Guards Parade southwards. As regards the north and south route which Mr. Blashill suggested, much might be done by improving the portions from Oxford Street to Charing Cross Road through Soho Square. He did not see much need to improve the route from Piccadilly eastward to Holborn. The opening of the wide Kingsway from the end of Great Queen Street made that, at any rate, a sufficiently good route, and he doubted whether the expense of continuing it across Lincoln's Inn would be justified by the advantage gained.

He supposed there could be no two opinions about the advantages of Colonel Haywood's scheme from Holborn Viaduct to the Whitechapel Road, but if the cost made this impossible he thought much advantage might be gained by the widening and straightening of Gresham Street, which was one of the most difficult streets to get through, and yet it was extraordinary how cabmen insisted on using that route, though they knew it was always liable to be blocked.

It was very natural that Mr. Blashill should deal with the question of the reduction of the cost of such improvements. No doubt if it were possible to get Parliamentary procedure altered in these matters much expense might be saved; but he thought that he would be a very sanguine man who believed he was at all likely to see such an alteration—at any rate for many years to come. So much of the time devoted to the business of Parliament was wasted, largely, as he was told, by the unquenchable curiosity of Members about subjects of no importance, that it seemed impossible to secure

time for the consideration of such improvements of procedure as those suggested. But he should think that something might be done by local authorities, when they got their Bills for street improvements, securing the insertion of a clause providing that all disputed cases of compensation should be settled by an umpire instead of by a jury. That he thought would greatly diminish the cost of such works.

He did not desire to express indiscriminate condemnation of juries. If one could ensure a good jury with a case within the limits of their experience they might be relied upon to give a good decision; but there was a very large *if* in the case. A jury might not be a good one and the question at issue might be outside the experience of its members, and then it became a gamble whether the verdict given would be too high or too low; or would be arrived at by adding together the valuations given by the different witnesses and dividing the sum by the number of witnesses. Such a state of uncertainty encouraged litigation and waste of money in costs, and sometimes led to extravagant compensation being paid. He had taken the trouble to ascertain the views of two experts as to the advantages of juries in the settlement of cases of this kind. He asked one eminent counsel—probably one with the widest experience at the Bar in such cases—and he said, "I "think a jury is a very excellent tribunal on the whole. "I never had any cause to complain of their decisions" —but then he was a man of singular influence in persuading a jury.

He asked another counsel of experience, not perhaps quite equal to the other's, but still very large, and he said, "If you want a just decision you need an "umpire; but if I am for the claimant I do not want

"a just decision; I want all I can get, and then I go to a jury."

On the question of how to raise the money to pay for these improvements, he did not think he should be in order in following Mr. Blashill in discussing the question of taxing land values; but he thought he might say that the owners of urban property were not more interested in the facilitating of traffic than the owners of shops in business streets and the owners of shares in railways and other undertakings, and if it were necessary to lay an extra tax on investments, so as to produce the money for improvements, it would be unjust to tax investments in real property and not all the other investments which were, more or less, equally benefited.

He much regretted that the coal and wine dues were ever abolished. They yielded a steady annual income which could be applied to the purposes of public improvements. No one felt them or complained of them, and the majority did not know of their existence, but they had been swept away, and now the necessary money had to be provided in ways which were often extremely burdensome, and must be felt oppressively by those who had to pay.

He gathered that Mr. Blashill's view was that it was to the removal of obstacles and alterations in present conditions of business and not to the carrying out of any ambitious improvements we should have to look for any abatement of our difficulties in the immediate future. If that were Mr. Blashill's view he believed he was right. He referred to a rather remarkable passage in Colonel Haywood's Report, with which he (Mr. Howard Martin) was not before acquainted, as to improved postal and telegraph arrangements having had the effect of increasing the traffic by increasing the volume of business

and therefore the number of interviews required. But the telephone would have the opposite effect, by diminishing the necessity for interviews, and he thought retardation of the growth of traffic might be looked for in that direction. He saw, shortly after Mr. Blashill's Paper was read, a report of the examination—he thought in bankruptcy—of a cab proprietor and livery stables keeper, who ascribed his loss of profits largely to the use of the telephone. A man in that position was not always to be relied upon in accounting for his difficulties, but it showed that a diminution in the use of cabs in consequence of telephonic communication had already been observed.

One very important point to which Mr. Blashill alluded was the organisation of works done to the surface of streets. He could not think it would be any improvement to entrust all the works of that kind to the Borough Councils. So far as his opportunities of observation went, the Borough Councils themselves were the worst sinners in that respect.

Not long since Fleet Street and the Strand were left in peaceful repose during the whole of the holidays, and then, just as the Long Vacation was over and everybody wanted to get to the Law Courts, nearly the whole of both streets was taken up and repaved. It might, surely, have been seen six weeks ahead that repairs would have to be done, and it would have been just as easy to do them then as when they would cause the maximum of inconvenience to the public.

He was aware that the subject was an extremely difficult one; but a suggestion occurred to him which he should like to hear discussed. Let a central licensing authority be appointed, to whom application should be made by anybody wanting to disturb the surface of the

roads, and if such applications were made for works which were not of pressing urgency, let the licensing authority see that such works were carried out so far as possible at one and the same time, permitting of course, when it might be necessary, the immediate carrying out of any work to meet an emergency. He put that forward for consideration. He was not sure how it would work, but he should have more confidence in it than if those matters were left entirely to the Borough Councils.

He thought Mr. Blashill rather understated the probable effects of foot-crossings and tunnels or bridges for the relief of traffic. Some of the worst delays arose from the stopping of vehicles while foot passengers, who had, of course, as much right to the use of the road as those in carriages, got across. He believed that many foot passengers would prefer to go over a foot-bridge or through a tunnel rather than wait till the traffic was stopped or risk crossing while it was moving, and he thought there would be an enormous gain by the adoption of such means.

He did not think so much relief as Mr. Blashill anticipated was to be looked for from the use of motor vehicles. Room was certainly gained by the absence of horses; but there was a tendency to make the motor wagons longer and wider than horse drawn vehicles, and, moreover, there was the liability to side slips to be considered. Not only did motor wagons take up more room than horse-drawn vehicles, but often dragged trains behind them which caused an obstruction to the traffic that no horse-drawn vehicle could create.

With regard to police regulations, all must have admired the sturdy British tone of Mr. Blashill's contention that when we took a conveyance we wanted to be picked up where we were and put down exactly

where we wished to go. He did not think, that being so, it would be found practicable for the police to regulate matters to such an extent that slow traffic should all go along certain streets and fast traffic along others. He thought the remedy would be worse than the disease.

Coming to another point, he would call attention to Mr. Blashill's complaint of the loading of vehicles beside footways in front of trade premises. That was acknowledged to be a great obstruction to traffic and a nuisance to foot passengers, but it must be remembered that it had been allowed for a very long while. The people who now owned premises, and their predecessors in title, and probably those before them, had enjoyed that advantage, and had bought the property on the understanding that they were not to be called upon to set aside a portion of their premises as a loading dock, but might use the footway for the purpose, and moreover on that basis had paid rates to the local authority on the increased value so obtained. He ventured to think that if that were suddenly altered it would work a very great injustice to the owners of property, and would considerably diminish the rateable value of those business premises, and, in consequence, the income of the local authorities.

Mr. WILLIAM WOODWARD (Fellow) said that Mr. Blashill's excellent Paper dealt with a subject in which he was very particularly interested, and it might be within the memory of some present that in February, 1886, he had himself the honour to read before The Institution a Paper on "London Remodelled." On that occasion he went very fully into the subject of street traffic, and since then Mr. Blashill and many others, who had a love and regard for our magnificent metropolis,

had persistently advocated some of the improvements to which the present Paper now referred. He did not know whether Mr. Blashill had seen a book by Sidney Smirke, the distinguished architect of many important architectural works in London. The book, which contained suggestions for architectural improvements in the western parts of London, was published in the year 1834, and, curiously enough, on the plan accompanying it, Mr. Smirke showed the opening from Charing Cross to the Mall which many architects had been endeavouring to secure for at lease half a century. The plan distinctly showed that Mr. Smirke, even in those days, was aware what a magnificent vista could be opened up to relieve the traffic from Charing Cross to the west. He also showed a very fine avenue running through the north of London, passing on by the British Museum, and another avenue partly on the lines which had now been adopted by the London County Council in the new street from Holborn to the Strand. It really seemed there was nothing new under the sun, and that many of the various suggestions now brought forward were occupying the minds of great authorities seventy years ago. The subject was one on which Mr. Blashill was peculiarly competent to speak, for he had been early connected with Colonel Haywood, who was the pioneer of street improvements in London, and he thought the first to advocate the underground conveniences, the first of which was formed, he believed, at the Royal Exchange under his superintendence, and from his designs. On pages 311 and 312 Mr. Blashill mentioned various avenues to be formed in Central London, some of which were very good, but of course they all regretted the Charing Cross Road improvement, which did not lead in any direct way to the east, as it

might have done, and which was altogether, he thought, a rather doubtful sort of improvement.

On page 313 Mr. Blashill referred to the question of empowering the Borough Councils to do all the work on the roadways, and to charge the cost to the parties concerned, and the last speaker also referred to that point. He (Mr. Woodward) was surveyor to the Crown Estate Paving Commissioners, and a very small area of London was under his control—the area around Regent's Park. But with reference to Regent's Park he might say that certainly for 30 years the Crown Estates Paving Commissioners executed the work, which was measured up by the surveyor and paid for by the particular persons who opened up the paving. For example, the Electric Lighting Company for Marylebone District gave notice of what was to be opened up, and contracted with the Commissioners, by whom the work was done, and a very satisfactory state of things resulted. In the case of St. Pancras, the Borough Council, being an Electric authority, executed the work, but it had to be done to the entire satisfaction of the surveyor to the Commissioners. That was a little district in London, but its size did not matter; the success would be the same if the system were applied to a large London area.

As Mr. Blashill said, the men worked "as if there was "no sort of hurry though the traffic may be crawling "in single file or losing ill-spared time in side streets." Now a great deal of the time wasted, owing to the obstruction of the traffic was, to his mind, caused entirely by want of supervision on the part of the engineers or surveyors who had to superintend the opening up of the roadways for various purposes. It was matter of common knowledge that the end of Tottenham Court

Road, at its junction with Oxford Street, had been opened up for months, and during that time one found there groups of dozens of men standing, talking to each other, and doing nothing in the way of work. This was entirely due to the British workman being allowed to occupy the greatest possible amount of time in doing the smallest possible amount of work without any organised supervision whatever.

At page 314 reference was made to the very vexed question of paving roads. In the little district to which he had referred he had paved the roadway with true old macadam, to which Mr. Blashill had not referred. Instead of using such large pieces of granite mixed with hoggin and sweepings, as was usually done by the councils, he did not use any larger than would pass through a 1½-inch ring, and most of it much smaller. Sand was not mixed with it, but simply small granite put on the roadway and well watered and rolled in. By way of test he did one-half the road with macadam and the other half on the Borough Council's method, with the result that the macadam proved much the better and more durable. Real macadam work took a good deal of beating for all sorts of traffic, if only it were carefully done.

With regard to footways dedicated to public use Mr. Blashill referred to the shopkeeper "who projects "his counter and stands outside, serving his customers." He remembered that a short time ago the Westminster Borough Council summoned a bookseller in the Charing Cross Road for projecting his stall-board 18 inches over the footway; but the most extraordinary thing was that, at the same time, the theatres and music-halls should be allowed to occupy the public way as they did with crowds of visitors without any sort of attempt on the

part of the police to regulate or to prevent such an obstruction. It was, to his mind, perfectly monstrous that long lines of the footway should be so occupied, day by day, outside the theatres on each side of the Strand and elsewhere, forcing foot passengers into the roadway to the danger of their lives, while the remedy was perfectly simple. The theatre proprietors should be made to open their doors at an earlier period to admit the people, and let the proprietors pay for the superintendence that might be required for those few hours before the performance commenced.

On page 315 Mr. Blashill referred to obstructions by vehicles, and there again the obstruction was almost entirely due to the absence of control on the part of the police. They had immense powers over the traffic of London, but did not exercise them. They allowed a man to leave his wagon standing unattended in the street as long as he liked, and in the meantime a most important thoroughfare was impeded, because the police would not take the trouble to find him or take the horse and vehicle into a side street.

He quite agreed with Mr. Blashill in his observations on page 320 with reference to tramcars. He thought the more we could minimise the number of tramcars in London the better.

Reference had been made to the cost of these great improvements. He ventured to think a reason could be found, for some of the cost, at all events, in cases where the London County Council laid out a new street. They cleared the property and turned out hundreds, and perhaps thousands, of poor persons, not only weeks or months but years before they were prepared to carry out any of the public improvements. He had walked down Drury Lane almost daily for many

years, and had found houses empty and poor people turned adrift for at least a dozen years before the London County Council was prepared to carry out any of the improvements. The cost was, of course, tremendous. There was not only the cost of acquisition of the property but also the loss of rates throughout those years. The same observation applied, to a minor extent, to the large improvements from Holborn to the Strand.

That was one of the elements of the great cost which made it impossible for the authorities to carry out much-needed improvements. If some better system of waiting a reasonable time before property was pulled down were adopted, there would be much more money left to carry out the needed work, and much less objection raised on the part of the already heavily rated ratepayers.

He did not quite agree with Mr. Blashill, on page 333, where he rather seemed to discountenance the erection of bridges. He thought, with Mr. Howard Martin, that bridges in certain thoroughfares in London might be advantageously placed. They might be made architecturally beautiful and ornamentally placed, as in the case of the Savoy Hotel and other bridges in London, and he thought passengers would prefer to walk a little way up to a bridge than wait, as Mr. Howard Martin had said, for many minutes to pass over the roadway.

He feared he had almost exceeded his limit of time but he could not help referring again to the Paper which he had the pleasure of contributing nearly 20 years ago to Volume XVIII. of the *Transactions* of The Institution. In that Paper he quoted the remarks of Voltaire, who, in his article "Les Embellissments de "Paris," complained of the then miserable state of the French capital, and urged its reconstruction in spite of

the cost, which in the end would be more than recouped by the many advantages. That was an expression of opinion by Voltaire, whose complaints and protestations were much in the strain of those now uttered by Mr. Blashill, who was not only a well-travelled man, but one who in his travels kept his eyes wide open and his note book and pen fully occupied.

Professor HENRY ROBINSON (Fellow) said he had not intended to speak; but he thought that after the reference Mr. Blashill had made to the surface of the roads, he might make a few criticisms. He did not intend to say anything about the improvement of routes in London, but he thought when one came to consider the present road surfaces and their dangers, he could not be very far wrong in saying there was not one in that room who would not agree with him that an enormous field was open for improvement. He was willing to believe that there would, in the future, be some means of making the surfaces of main roads sufficiently smooth to answer the purpose required for roads for motor traffic, *i.e.* instead of having part of a road occupied by two lines of rail as now, the whole surface of the road would be sufficiently smooth to enable the traffic of the future to be dealt with by motors and motor cars. He hoped that in ten years' time there would be none of the atrocious things now to be seen in the shape of noisy cars or big motor engines drawing trucks, but motors working quietly.

Motor traction was in its infancy. He was certain that with improved methods of traction, and improved methods of storing energy, we might look in the near future for the substitution of motors in our main streets for horse traction. There would be, perhaps, means found

of maintaining a road, without stopping the traffic for the works, by having, as the author of the Paper said, some material which could be applied at night time to the parts it was requisite to restore. Thus we might have road surfaces in a condition very different from their present scandalous state. A London wood-paved road at the present time was often a kind of switch-back. Whether the foundation of the road was not sufficiently even or whether the quality of the wood varied, and one part of the surface wore away quicker than another part, it was the fact that travelling on a wood-paved road at the present time was often better, perhaps, for the liver than for comfort. Without committing himself to details, he felt sure that in the near future there would be found means for so maintaining the road surface as to enable motor cars to be a better substitute for horse traffic than was the case at present. Some parts of roads in London were already being dealt with on these lines.

At that point the question of health came in. He thought all knew that the continuous rains of last year were attended by a reduction of the death rate—or an improvement in the health rate—which medical men attributed to the absence of the injurious road dust. That pointed to the fact that the surface of the roads was mostly defective as well as often badly scavenged. He would venture to say, in the presence of one of the borough engineers of London, that the scavenging and cleansing was often defective, and the result was that owing to the road surface being bad, pools and foul matter were left in the cavities and interstices, and, on drying, formed the filthy dust that one was compelled to breathe.

He was not opposed to lines of tram rails and high

tension service along main roads for long distances, but decidedly against introducing electric tramways, or any form of tramways, in narrow and crowded streets. He had in his mind one place especially where he had dissuaded the authorities from doing this, and had advised that Corporation that before very long they could make a road to enable motor cars to do all the service of the town instead of monopolising part of the street in the way proposed, to the serious inconvenience of vehicular traffic.

Mr. J. DOUGLASS MATHEWS (Fellow) said it appeared to him that among so many schemes suggested for the improvement of the traffic in London some valuable ones were in danger of being overlooked. Some years ago the cost of schemes was talked of in thousands of pounds, but now it was in millions. He was almost surprised that among the projects for street improvements no suggestion had been made to move London altogether some 30 or 40 miles away and start afresh, and then perhaps in 100 years' time it might be a city convenient to get about in. He supposed there would always be inconveniences to put up with, but we must, as our forefathers had done when traffic increased, take measures to widen our streets. It was very easy and attractive to talk about streets 100 feet wide north, south, east, and west, but he was afraid that any such schemes, if carried out, would do much harm to the business of London while in course of construction. That must be thought of as well as the cost, for, after all, the money would have eventually to be found by the ratepayers in one form or other.

A previous speaker had lamented the abandonment of the coal dues, the burden of which was hardly felt at

all. In former times the Corporation of London received 1*s.* per ton for all coal delivered within a certain radius and the result had been the carrying out of many improvements up to some 50 years ago. When the Metropolitan Board of Works came into existence it was thought they should receive some part, and instead of the Corporation taking 1*s.* they retained 4*d.* and the Metropolitan Board received 9*d.* That enabled many great works to be carried out and improvements in all parts of the metropolis to be amply dealt with, but unfortunately those taxes were dropped, and the City of London, which was doing its best for its thoroughfares, had to find the money directly out of the ratepayers' pockets. The burden fell very heavily on the ratepayers, who not only had to pay for local improvements, but also to bear one-eighth of the cost of the whole improvements in the County of London.

The state of affairs foretold in the quotation from *Looking Backward* might seem very attractive, but Mr. Blashill must remember that if goods were ordered in the way suggested they must still be delivered. Consequently, instead of the lady going to the shop and buying whatever articles she required and putting them in her pocket and going home, they must be specially delivered, and this instead of reducing the carriage traffic would increase it. Much the same thing had taken place in London during the last 30 years. Up to that time it was usual for manufacturers to send goods to the City warehouses from whence they were distributed. Instead of that, orders were now simply taken in the office and show-rooms, and were executed from the manufactory in the country, and, therefore, the traffic now became even worse by reason of the railway wagons,

with which some streets were absolutely crammed at certain times of the day.

Then again Mr. Blashill suggested that manufactories should be taken from the centre of the City to outlying places. That might be an advantage in one way, but on the other hand there was an increased traffic from those places, for if manufacturers went away from London their goods must be brought to London, and again there was rather an increase than a lessening of traffic. It appeared to him that if means were taken to relieve the through traffic north to south and east to west, the City streets could accommodate its reasonable traffic. That afternoon he was walking down Cornhill between three and four o'clock, and found nothing to impede the traffic whatever, but a couple of hours later the whole place would be choked, the greater part of the traffic being east and west traffic. Of course the place of all others (and he supposed there was no such other in the world) was the front of the Mansion House. Throughout the whole working day vehicles of all descriptions were there, and the reason was not that it was purely City traffic but it was through traffic over London Bridge northwards and southwards meeting that going east and west, with hardly a second's intermission.

What he thought was wanted was more direct streets. The old roads were laid out by our forefathers and they remained the main roads of the present day—such roads for instance as Bishopsgate Street leading away to the east, and Aldersgate Street and Tottenham Court Road to the north, and others. He thought that if more care and attention were given to widening some of the most used streets a great advantage would result at comparatively small cost. There was a great difference

between widening a road and reconstructing a new one, where persons must be dispossessed and turned out for others to take their place.

It took a long time for a new street to establish itself. Queen Victoria Street had been constructed 10 or 15 years before it was used to any extent, and he had no doubt the same thing would happen in the case of Kingsway. It was a fine street, but what was going to be built upon it? It was one thing to take down buildings and widen a street while the traffic and business continued, and another thing to construct a new street that had to wait for both.

In his Paper, Mr. Blashill had suggested the desirability of having a new street from south to north. With that he agreed, but as to the way of doing it, he did not altogether fall in with his views. It was now 25 years since he advocated a street from south to north over Southwark Bridge. The roads from the south of London were very good up to Southwark Bridge, which had a rather steep ascent, but not so much so on the south side as on the north, which was exceedingly steep, and was rendered more difficult by an ascent up Queen Street. What might be done was to take a spur from the crown of Southwark Bridge in a north-westerly direction by forming a viaduct over Thames Street, into Queen Victoria Street. That was almost on a dead level. Then he would propose to widen Bread Street and Wood Street, which would then lead up to Fore Street. Then by Redcross Street and Golden Lane, which were wide enough, up to Old Street. Opposite Golden Lane there was Central Street which he believed was to be widened, and that would be carried on to the City Road with a saving of about one-third of a mile. There were some small streets on the north

side of the City Road which at a very small cost could be made into wide roads, and would carry the traffic directly up to Islington Green near the Agricultural Hall. There would thus be a direct north and south street of good width, which would considerably relieve the traffic at the Mansion House, because at the present time vehicles had to go from Southwark Bridge by Queen Victoria Street, in front of the Mansion House, and turn up the City Road northwards.

There was also a need, as Mr. Blashill very rightly said, of a street from west to east. As far as the west was concerned the Viaduct in that particular district was practically all that could be desired, and there was very little widening required at that point. Mr. Blashill suggested a street at Giltspur Street, to cut through where Christ's Hospital formerly stood; but whether the street to be formed by the Post Office was to be for the general public or a private street he was not sure. He rather thought it was to be a private street. But supposing it was made into a public street, then that would be no great advantage, as it would lead nowhere. The widening of Gresham Street had been suggested by Mr. Howard Martin; but if that street were widened the traffic would still be through the heart of the City.

Another suggestion of Mr. Blashill's was that the traffic might go down Charterhouse Street, and then bridge over the Metropolitan Railway. He could not agree with that, for the descent on both sides was bad and he thought such a street would be but seldom used.

Then as to the road eastward, his (Mr. Mathews's) proposition was to form a new street approached through Giltspur Street and in front of St. Bartholomew's Hospital, through an area already cleared in part, where the

bulk of the property was not insanitary, but small, and might with advantage be acquired at a small cost.

His proposition was to open up the south front of St. Bartholomew's, and to continue as far as Aldersgate Street, and crossing Aldersgate Street to continue to Fore Street, widening the north point of Jewin Crescent. The traffic would then pass through Fore Street and London Wall and Wormwood Street. A short street should be made from Houndsditch, which would be widened, leading to the Minories (already a wide street), and by that means the traffic would pass over the Tower Bridge, thereby getting on to the south-east side. This street would top the street running north and north-east.

Anything like widening a street was an expensive matter, but he ventured to say it would be one of the cheapest possible streets from east to west, and would accomplish what he considered was necessary, namely, to relieve the heart of the City by taking the through traffic practically outside the City instead of by Cannon Street and Cheapside.

He believed Mr. Howard Martin also suggested that some small streets might be made with advantage. This would be the case if a short street were made from Clerkenwell Green to St. John Street Road, which would form a direct route from Blackfriars Bridge to Highgate, passing along Farringdon Street, Farringdon Road, Clerkenwell Green, St. John Street Road, to the Angel at Islington.

Mr. W. N. Blair (Visitor) said there were so many points to discuss in Mr. Blashill's admirable Paper that almost every one could find some point of particular interest on which to speak. Whether the lines of route

adopted in the London streets were criticised, or the construction or management of the roads condemned, it was easy to find fault, but it was a little more difficult to prescribe for the effectual treatment of these evils.

He was disposed to agree with previous speakers that the laying out of entirely new lines of main thoroughfares was such a costly business that it would now be found hardly practicable in many cases in London. He rather thought that the improvement and widening of existing roads would prove to be much more economical and quite as effectual.

It might be that at certain congested points lines of traffic needed to be opened up by the construction of new pieces of road, and, as in some cases mentioned in the Paper, they would no doubt give great assistance in the relief of existing lines of traffic.

The proposal to continue Charlotte Street by Rathbone Place and Soho Square, and coming out at Shaftesbury Avenue by the Circus, would, if carried out, undoubtedly relieve the Tottenham Court Road—a thoroughfare which had been much in evidence lately by reason of the application to Parliament to construct a tramway therein. That proposal had met with great and reasonable opposition, and although the Committee of the House of Commons had given their consent to a very clipped scheme, it remained to be seen whether on that reduced scale it would survive the ordeal of the Upper House.

It was a scheme which only needed careful examination to stand condemned in the eyes of practical men.

The consideration that it was proposed to bring a double line of tramways down the Tottenham Court Road with a distance of 20 feet between the lines of rails, leaving a huge cab-stand down the centre, led one

to seriously doubt the wisdom of a plan which left about 10 feet 6 inches on either side for the ordinary traffic, besides vehicles standing in front of the shops.

The contemplated tram service was to be at about one-and-a-half minute intervals (which intervals were very unlikely to be accurately observed), and he left it to be imagined what would be the result of such a scheme. Something like 8,000 vehicles in 12 hours now used that road. The maximum was about 1,000 per hour, and of those about 350 were omnibuses. It had been contended that tramways and tube railways would remove omnibuses from the streets, but although the Central London Railway was, he thought, generally used to its maximum capacity, there was still positive evidence that the number of omnibuses in Oxford Street had increased since the railway was made. Again, the tramway service in North-west London was, for a horse tramway, a very good service. It worked at something like minute-and-a-half intervals, but as many omnibuses as ever still followed exactly the same route.

This brought him back to what he began by saying—that the widening of existing thoroughfares was wanted rather than the multiplication of routes. He feared that Mr. Blashill's ideal condition of affairs, which enabled people to get into a vehicle where they were and get out where they wanted to, did not quite accord with the other suggestion that the traffic should be marshalled in certain definite lines, the quick traffic using one street and the slow traffic another. He was afraid that such a system of drill applied to vehicular traffic in the streets would hardly work in practice.

A good deal had been said that rather reflected on the local authorities of London. One of the earlier speakers stated that the worst offenders in regard to

interference with the streets were the local authorities. He (Mr. Blair) was prepared to combat that.

It might not be generally known how many authorities or companies had statutory powers to break up the streets. In the borough of St. Pancras, for instance, there were twelve different bodies, quite independent of each other, with statutory powers to open the roads. They certainly had to give notice to the Borough Council, but that body had no power of refusal. All they could do was to supervise the manner in which the opening up should be done.

They had not even power to divert the course proposed to be taken by the companies, who simply carried out their works according to the dictates of their own wishes. They were nominally controlled by the Borough Council; but actually there was no such real control. That was not the fault of the Borough Councils, but of the statutes under which the different companies worked.

The Borough Councils, therefore, should not be blamed for the interference with the traffic which was certainly not caused by them. It was true that the roads might sometimes be opened at inconvenient times; but those times were not always within the absolute control of the Borough Councils. There might be such things as hitches in the performance of contracts. They might not get their materials delivered exactly when they wanted them. Materials of a sort might be offered to them at the time they were wanted, but they might not be able to accept them.

It was within his own experience that very large consignments of wood blocks for street paving had been provided by a contractor and had to be rejected. The Council could not be blamed for that.

The time during which work might be executed varied from many causes. First, it was influenced by the weather; and again, while it was no doubt advisable that the work of repair should be executed with the greatest possible promptitude, it should be remembered that these works were largely dependent on the use of Portland cement for foundations. It was a most valuable material, but it must be allowed a certain time to harden before sending traffic over it. A road had therefore often to be left in a condition which looked as if it had been begun and left unfinished without any object; but it must so remain for a certain time, or when wood or asphalte was put on it, the weight of the traffic, which was enormous, would soon grind the cement to powder and the work would have to be done again. It was better to do the work well in proper time than to do it more quickly but ineffectually.

He entirely agreed with the author of the Paper when he said, "We want, first of all, to remove the "obstructions." The great cab-ranks in the Tottenham Court Road was a case in point of an obstruction which ought not to be allowed for a moment. Then there were obstructions by costermongers and by traders projecting their goods on to the footway, and themselves standing there to conduct their business, and causing a further congestion by the attraction of customers. Supposing these cases were taken to the police-court for a remedy, what encouragement did the Council get if the magistrates fined the offenders five shillings and two shillings costs? It was a cheap rent which it well answered their purpose to pay. The treatment of such offenders should be much more drastic.

Another form of obstruction which had been mentioned was the steam traction engines drawing heavy

carriages. The case of such vehicles had just been dealt with by the London County Council, who had prepared two long categories of streets, one containing the names of streets which might be used by those vehicles during what might be called the daylight hours, viz. from 10 a.m. to 6 p.m., the idea being that these were residential streets, and that they should not be used by those vehicles during the night, to the disturbance of the residents. The other list contained the names of streets that might be used by those vehicles during the night only. Those were business streets which must not be obstructed by those vehicles during business hours. But another consideration came in here in regard to traction engines, and that was the fact of vibration caused by the passage of these engines, often weighing some 15 tons, and many of them drawing 40 tons, which vibration had of course a most injurious effect on the adjacent buildings.

He hoped most of those present would live to see a time when the modes of traffic would be much improved, and when our roads would be paved with more suitable materials. Wood blocks formed a very satisfactory pavement for a horse to draw its load on, but it was open to many objections. Soft wood pavement was no doubt foul, and hard wood pavement, though less foul, was more noisy. One might go through the whole list of materials now in use and find objections to each one of them. There was no pavement that could be regarded as ideal.

With regard to railway traffic, he was afraid railway companies would not be persuaded to fall in with the suggestion that the time was in view when time-tables would be superfluous, and one would drive to the station, not at the time fixed by the company, but at his own time, and take a place in the next available carriage.

Reverting to the question of the development of existing lines, there was one line of thoroughfare which

in the near future would, he believed, develope into great importance. Hitherto it had not received much recognition from those who had given the subject attention and had offered suggestions. The route he referred to was an absolutely straight line from the bottom of High Street, Camden Town, by Seymour Street, Russell Square, and Southampton Row, to Kingsway—a line of street not very much used now, Seymour Street being principally occupied by a cab-stand for Euston Station, but it would form such a line of thoroughfare that, if widened, it would scarcely have a rival in North London in accessibility to important streets.

The same with regard to the Euston Road, which, with very considerable foresight, was laid out more than half a century ago, 60 feet in width with forecourts of 50 feet on either side. The original plan had been completely forgotten in the treatment of the Euston Road during the last 30 years or so. The 60 feet width was reduced to less than 50 feet, and at Portland Road Station to about 40 feet. The idea of improving this road had now been revived, but it would be very expensive in parts, for buildings had been erected much in advance of the original line of buildings.

He did not quite agree with the suggestion to continue a road eastward from Kingsway to Lincoln's Inn. It would be a very expensive matter, and considering the proximity of Little Queen Street to the line of Holborn it would scarcely seem worth while by a parallel line to run from Great Queen Street to the wide portion of Holborn near Gray's Inn Road; but a widening of Long Acre and Cranbourne Street into Leicester Square would form a very useful line of thoroughfare.

He rather imagined that Mr. Blashill's reference to bridges had not been taken in quite the sense intended. A speaker had referred to them as if they were to be crossings for foot passengers to get across busy places.

The reference to them in the Paper, he apprehended, applied to carriage-way crossings—that one roadway should be taken underneath another.

But, as had been pointed out, to obtain gradients of 1 in 30 it would be necessary to have slopes, up and down, equal to 380 yards in length on each side.

When the value of property was considered, it would be seen how serious such a proposal was. While one roadway was taken down under another, it was necessary, at the same time to maintain the connection between the two. That meant a greatly increased width of road at the intersections.

He knew it was contended by some that the ultimate result of these large new roadways, such as Kingsway, would be to produce profit to the bodies promoting them. It was not always safe or easy to prophesy, but he was a little sceptical as to the result. He should not have sufficient faith to invest in such an undertaking with a view to its producing a profit. It was often true, as had been said, that when great new thoroughfares were laid out, the first effect was not to secure the best and most profitable class of property. Take Charing Cross Road as an instance, what was to be found there? Workmen's dwellings along both sides. Queen Victoria Street could not be pointed out as one of the principal streets in London, nor could Rosebery Avenue or Shaftesbury Avenue. None of them were at present streets of the highest class of premises, though they might develop that character in the course of a few generations.

Mr. Blashill, in reply, said he wished first to thank the Members for the very kind way in which they had received his Paper, and for their indulgent criticisms of his proposals. Most of the speakers had been good enough to agree with him. And though in some respects

he might have been a little revolutionary, his views seemed not to have been too advanced for those who could claim to speak with authority on the subject.

One would be disposed to think, with Mr. Howard Martin, that the use of the telephone must tend to some extent to reduce London traffic. It might also have been thought that the innovations mentioned in his Paper—the development of letter-carrying and so on—would have decreased London traffic, but it had not, and he doubted very much whether the telephone had really done so. It was true, that if he could speak to a friend on the other side of London by telephone, it saved his going there and cleared the streets of him, and perhaps his friend also, but it had the far-reaching effect of increasing the total amount of business done in London, and anything that increased the amount of business done indirectly increased the traffic in the street.

Then with regard to quick traffic and slow traffic. His ideal was not—as he hoped he had shown in his Paper—to divide slow traffic from quick traffic and to put them in different streets. His distinct opinion was that slow traffic should be done away with. People had no business to go about London in vehicles at a foot pace when they could go at a quicker rate, and we were coming to the time when it would be better, cheaper, and easier to take the heaviest ordinary loads (exclusive of the exceptionally heavy traffic) at a quick pace, and then he thought the whole body of the traffic would move together.

Long years of application had qualified Mr. Woodward to speak as an expert on a subject of this kind, and he was pleased to have his efforts so favourably commented on by him and to have the advantage of his proposals. If he had unconsciously followed the line of Voltaire's suggestions he would take it as complimentary, not to Voltaire, but to himself. There were few, and among

these few Mr. Woodward was one, who seemed to understand what thorough macadam work was. The principle of road macadam was not to use stones as large as one's fist, but small stones which, when rolled down thoroughly, formed a kind of mosaic, which made a splendid road for town or country.

In speaking of bridges over streets, he was certainly alluding, as Mr. Blair said, rather to bridges for general traffic than to foot-bridges. With regard to foot-bridges, of which he had said a little, he thought if one watched such places as the junction of Queen Street and Cheapside, one would find that while the carriage traffic was allowed to go east and west the foot traffic also went east and west. Then when the carriage traffic going east and west was stopped, and the north and south traffic went on, the foot traffic north and south went alongside it, and there was no obstacle at all. He did not apprehend much difficulty in that.

He was glad to have the assistance of Mr. Douglass Mathews, whose position in the City entitled him to speak with great weight. While he could heartily agree with most of his suggestions, he still thought his own plan of a carriage tunnel from Southwark Bridge northwards was—might he say the best?—at any rate worth consideration. Something would have to be done there sooner or later.

Then Mr. Blair, as engineer to the borough of St. Pancras, very properly represented the officers of the Borough Councils, whose views were of the greatest importance in relation to this question. Mr. Blair had made himself so thoroughly acquainted with street pavements, and had written so ably on the subject, and more particularly on the best method of laying hard-wood pavements, that anything he said must carry weight.

As to protecting the workers from the weather, he did not see why it should not be. Every time a school

had a day's treat in the country the children had a temporary shelter put up for them, and he did not see why there should not be a similar shelter over the men so that they might work in all weathers, and also night and day. It need only be a very slight, easily moveable affair, which could be rigged up in a very short time.

He was rather encouraged by what Professor Robinson had said as to the possibilities of invention. A good many young men were educated under his charge for professional practice. Although the inventor starved perhaps, he was always followed by others, and he was satisfied that we should in time have some proper method of an easily renewable thin road surface laid on a solid foundation. He put that to prospective inventors as a thing to aim at, and if any of them wished to have their name handed down to posterity, here was their chance.

He was disappointed that his notion of the frequent trains had not been generally accepted by speakers as he hoped it would be. He went down to Exeter a few days ago—something like 198 miles or thereabouts—without a stop, in a train that seemed to him to be about a quarter of a mile long, and he could not but think it would be quite as easy for three or four carriages to be coupled together and to go more frequently than for such an immense quantity of traffic to be taken at a time. When electricity was applied to every carriage it would do away with the necessity for heavy and infrequent trains.

He thought he had commented on most of the points that had been raised on the question under discussion, and he would only detain the meeting to express his hearty thanks to the Members who had commented on his Paper with such good humour and such a kindly desire to add to its value as a contribution to the *Transactions* of The Institution.

The Meeting then adjourned.

THE VISIT TO
NEWCASTLE-ON-TYNE.

AT

THE ORDINARY GENERAL MEETING

Ield at Newcastle-on-Tyne on Thurday, May 26th, 1904.

The Members were received in the Council Chamber f the Town Hall, Newcastle, by the Deputy Mayor Mr. Alderman J. Goolden), supported by Mr. W. R. Plummer, M.P., and Mr. G. Renwick, M.P.

The Deputy Mayor (apologising for the unavoidable bsence of the Mayor) said he desired, in the name of he Mayor and Corporation of the City, to heartily velcome the Members of The Surveyors' Institution to Newcastle. He was fully aware of the importance of he body represented by the visiting Members, who, he oped, would find much to interest them in the antiquities of the City, and possibly some things to add to heir practical experience in its progress and development, of which its inhabitants believed they had reason o be proud. Many questions with which the Members f The Surveyors' Institution were familiar were of the reatest importance to a growing town like Newcastle, vhere the best efforts in the direction of improvement vere often seriously hampered by difficulties of light nd air and adjoining ownership.

Mr. W. R. PLUMMER, M.P., said he cordially associated himself with the warm words of welcome spoken by the Deputy Mayor to the Members of that important Conference. He did so in a two-fold capacity; first as a member of the City Council of some years' standing, and also as one in the proud position of Member of Parliament for the old town, but modern city

Mr. G. RENWICK, M.P., also heartily joined in the welcome which the City was glad to extend to the representative Members of The Surveyors' Institution on the occasion of their visit.

Mr. ALBERT BUCK (President) said that, speaking on behalf of the Members of The Institution, he sincerely thanked the Deputy Mayor and the members for the Borough for their kind and hospitable welcome. The Institution, he was happy to say, numbered many valued members among the surveyors in the northern counties of England, and it was with great pleasure that they had accepted the invitation of the Local Committees to make Newcastle-on-Tyne the place of the Annual Summer Meeting and Conference. The hospitality of the North of England was proverbial, and on this occasion the heartiest of welcomes had met the visiting Members immediately on their arrival. He had no doubt that they would find much to learn concerning the development and organisation of the City and its many vast and important industries, and if in return the proceedings at their Conference should be happily the means of throwing any new light on questions of local interest which came within the surveyor's purview, he would regard the occasion of the visit as doubly fortunate.

A vote of thanks to the Mayor and Corporation for

their reception having been put and carried unanimously, the Members proceeded to the Lecture Theatre of the North of England Institute of Mining and Mechanical Engineers, and the President having taken the chair, the Conference was declared open.

The proceedings began with a lecture, illustrated by a number of quaint and interesting lantern views, on "Newcastle in the Olden Time" by Mr. R. Welford, M.A., who briefly sketched the history of the town from the days when the invading Romans, recognising the importance and strength of the position, built a fortified station, erected a bridge, and made this the principal stronghold in the north, subsequently extending the great wall east and west of it, from sea to sea across Britain. Coming down through Tudor and Stuart times, Mr. Welford showed reproductions of many prints and maps indicating the strength of the walls and towers, the bastions and gates, and the great Castle, whose keep was even now so dominant a feature in the town. Anecdotes of many celebrities, with views of houses connected with their careers, were given, the birthplaces and residences of Lords Eldon and Stowell, Lord Collingwood, the poet Akenside, and the engraver Bewick and other great citizens were shown, and the lecturer entertained the Members with a number of selections from his apparently inexhaustible fund of humorous local tales and legends.

At the conclusion of the lecture a hearty vote of thanks to Mr. Welford was proposed by Mr. H. T. Steward (Fellow), seconded by Mr. J. M. Clark (Fellow), and carried unanimously,

PAPER 297.
No. 469.

FIRST PAPER.

REHOUSING OF DISPLACED POPULATIONS.

BY EDGAR J. HARPER (Professional Associate).

The limitation of the subject of this Paper is due to a recognition of the impossibility of treating the many phases of the great housing problem in a short space of time, coupled with a desire to confine the discussion to one single aspect of the question likely to be of especial interest to members of our profession. Even so, I am fully conscious of the inadequacy of the attempt I am making to deal with this one feature of the case.

There are three principal causes which produce displacements of population, viz.:

(A) Clearance of insanitary areas.

(B) Execution of works authorised by Parliament.

(C) Commercial and industrial development.

In all three the displacement is compulsory so far as the displaced population is concerned, but in cases (A) and (B) the compulsion is exercised by virtue of statutory authority.

Considerable improvements have recently been made in the law affecting the provision of accommodation for displaced persons of the working classes; and it may therefore be well to state briefly the law and practice in this regard prior to the passing of the Housing of the Working Classes Act, 1900.

The population of insanitary areas might then be displaced without any rehousing provision, by permission of the Local Government Board, under Part. II of the Housing of the Working Classes Act of 1890; and even under Part I., which deals with the larger areas, the confirming authority in Whitehall had discretion to reduce the maximum provision for displaced persons to the extent of 50 per cent. In the case of displacements due to closing orders under this Act and the Public Health Acts, there was no statutory provision for rehousing.

It is only fair to the Government Departments concerned to state that the discretion entrusted to them was exercised with care and circumspection; but they were undoubtedly hampered by Section 11 of the Act of 1890, which enacted that persons of the working classes displaced were to be accommodated in suitable dwellings *which were to be situated within the limits of the insanitary areas,* or in the vicinity thereof, unless there were special reasons to the contrary.

In cases where the cleared area, after making the necessary street widenings, did not admit of the erection of buildings suitable for residential purposes, the confirming authority could only insist upon the provision of new accommodation by calling upon the local authority concerned to acquire an entirely new site for the purpose, often at a heavy cost. Such a requirement in certain cases might prove absolutely unreasonable, and the result has been that a considerable number of persons of the working classes have, in the past, been displaced from insanitary areas, and no equivalent provision of new accommodation has been made.

In the case of displacements under powers conferred by private Acts of Parliament, it was formerly the practice to insert in the Acts authorising the works a

model clause providing that the public authorities, railway companies, or other promoters should not *purchase or acquire* twenty or more houses in any one parish, occupied wholly or partly by persons of the working class until they had obtained the approval of a Government Department to a scheme for providing new dwellings for such number of persons as the Department deemed necessary, having regard to the number of persons residing in the houses and working within one mile therefrom; to the amount of vacant suitable accommodation in the immediate neighbourhood of such houses; to the place of employment of such persons, and to all the circumstances of the case. These words probably include an absolute discretion (if need be) to dispense with the provision of new dwellings altogether, and it will be noticed that unless twenty houses were taken *in one parish* the question of providing new dwellings did not arise.

Displacements of population by private enterprise were not subject to any restrictions beyond those contained in the ordinary law of landlord and tenant, nor was there any authority empowered to require new dwellings in such a case. But local authorities under Part III. of the Act of 1890 had power to acquire land and erect buildings suitable for dwellings for the working classes, and to purchase or take on lease any houses of that character already built. These powers might, of course, have been used to provide for the displacements due to private enterprise; but they could not be exercised by any local authority beyond its own area.

The Housing of the Working Classes Act, 1900, removed this latter restriction, and empowered a local authority to build or acquire dwellings, outside its own district if necessary, for supplying the needs of that

district. Local authorities were, moreover, authorised to lease any land acquired by them in this connection, on condition that the lessee built and maintained dwellings within the meaning of the Act. This provision may in some cases remove the repugnance hitherto felt by some local authorities to the adoption of Part II., as by doing so they are no longer compelled to build dwellings themselves. Another important provision of this Act was that the County Council was empowered to act in case of default by a Rural District Council.

In the session of 1902, a Joint Select Committee was appointed by both Houses of Parliament to consider and report whether any amendments should be made in the Standing Orders and Model Clauses relating to displacements of persons of the labouring classes, and especially whether any and, if so, what provision should be made for rehousing *all such persons*, if displaced.

That Committee reported in favour of abolishing the limit of twenty houses in a parish and substituting one of thirty persons in a borough, urban district, or rural parish. They recommended that the new houses should not be too ambitious in character and design, and that the location of such houses should be left wholly to the discretion of the Government Department concerned. It is clear, moreover, that they contemplated the erection of buildings some distance away from the area of clearance. They further recommend that the Government Department should be empowered to *fix rents* for new houses thus provided, and that an amended model clause should be embodied in an Act of Parliament. The result was the passing of the Housing of the Working Classes Act, 1903, which adopted the substitution of thirty persons for twenty houses as the limit above which provision must be made

for rehousing, and embodied a model clause as a schedule to the Act. The suggestion that the Government should fix the rents of dwellings was not adopted.

Further amendments contained in the Act are—

(1) The extension of the maximum period for which money may be borrowed by a local authority for housing purposes, from sixty to eighty years.

(2) The Government Department is empowered to take into consideration the displacement of persons of the working classes from a scheduled area within five years previous to its acquisition.

[This is necessary in order to prevent arrangements whereby owners might he induced to get rid of their tenants and enable promoters to escape the rehousing obligation by selling to them with vacant possession.]

(3) The Government Department may also require that all or some of the new dwellings shall be fit for occupation before the displacement takes place.

By far the most important of these reforms are the discretion of the Government Department as to the locality of the rehousing and the abolition of the 20 houses limit. It may be broadly stated that Parliament has now declared that all displacements must be accompanied by the provision of new accommodation; and has indicated the suburbs rather than the busy centres as the proper locality for such accommodation.

The beneficial effect of these two changes can hardly be overestimated. In any important town in the kingdom displacements usually occur in the central and fully built-up districts. The compulsion to devote the cleared

sites to the erection of dwellings often involved considerable pecuniary sacrifice. Land thus situated is much more valuable for commercial purposes than for housing, and the difference between its commercial value and its housing value had to be written off as a dead loss before the provision of new dwellings could be commenced. In one case in London this loss amounted to over £200 per head of the persons to be accommodated on the site.

This enormous sacrifice had to be made apparently without purpose, and certainly without securing any desirable object. Insanitary areas are cleared, as a general rule, because they are condemned by competent persons as unfit for residential purposes; and therefore, so far as the public health is concerned, the erection of dwellings on these areas is obviously undesirable. And if the intention was to accommodate the actual individuals who were displaced, it is now notorious that—but for a few exceptional cases—the idea proved a complete failure. But perhaps the worst result of the old policy was the serious obstacle it placed in the way of the material progress of the community by diverting land from its most profitable use and tying it up for another purpose, for which the march of events was, year by year, tending to make it less suitable.

The twenty-house limit was liable to serious abuse. It was obviously possible to obtain statutory authority to displace a large population, without incurring any obligation, by limiting the number of houses scheduled in any one parish to nineteen; and, apart from profit-earning companies, it may be mentioned that a public body (now no longer in existence) succumbed to the temptation on one occasion. It will be noticed, too, that the new limit of thirty persons does not apply, as formerly, to a single parish, except in the rural districts,

and a railway company which proposes to displace thirty persons in any part of the county of London, or in any borough or urban district, comes at once under the rehousing obligation.

The effect of these alterations is well exemplified by a series of returns made to the London County Council of the probable displacements involved in London under Bills deposited in Parliament during the last few sessions. The figures are as follows:—

	1900	1901	1902	1903	1904
Total displacements of persons of the labouring class by all schemes according to the deposited plans	12,618	7,966	11,236	4,431	2,121
Number coming within the obligation to rehouse	11,868	7,058	10,003	3,213	2,093
Number not required to be rehoused owing to the limit (20 houses 1900-1903; 30 persons in 1904)	750	908	1,233	1,218	28

It will be noticed that under the Bills for the Session of 1904 (the first year after the passing of the Act) only 28 persons could have been displaced without the obligation to rehouse, or one person in 76 of the total number scheduled; whereas in previous years this proportion ranged from 1 in 17 in 1900 to 1 in 4 in 1903.

A very great deal, however, remains to be done in the direction of securing adequate provision for working class populations compulsorily displaced. Except Part III. of the Act of 1890, as extended by the Act of 1900, there is still no means of securing adequate housing

accommodation in lieu of displacements by closing orders and by private enterprise, and this appears to be one of the strongest arguments in favour of municipal action in the direction of providing such accommodation.

This is a matter affecting the health and moral character of the most numerous class of the population. Private enterprise is, after all, a matter of supply and demand, and if it is more profitable to build houses for the middle and upper classes, the housing provision for the proletariat may, and often does, come short. Thus we find thousands of poor families living in houses never intended for such use, and unprovided with adequate sanitary arrangements. In such a case it is difficult to see what satisfactory argument can be advanced against the conclusion that the necessary provision should be made by a public authority.

In this connection it may be useful to point out that a public authority is at least better fitted to provide housing accommodation than, let us say, a railway company. The chief aims of a railway company are to provide means of transit for the public and—if possible—to earn dividends for its shareholders. It possesses no experience of the housing problem, no machinery for grappling with it. Yet Parliament decrees that it shall bear the responsibility of providing accommodation for persons displaced, often delaying its railway operations in the process. Some provision whereby the rehousing obligation could be transferred to a public authority—of course coupled with adequate pecuniary arrangements—would probably prove beneficial to all parties concerned.

But there are other means of affecting private enterprise in this direction. Since the Act of 1900 was passed it has been the practice of the London County

Council, whenever applications are made to it under the Building Act, to ascertain the particulars of the displacements (if any) involved in the works, and to induce the owners, if possible, to make some provision in regard to them. Down to the present time (*i.e.* in three years only) it has been discovered in this way that 6,570 persons have been displaced, for whom no rehousing provision has been afforded except in 2,182 cases. The publication of these figures from time to time in the County Council's reports tends to produce a wholesome effect on public opinion.

It is also very interesting to notice that large freeholders have recently shown themselves willing to co-operate with public authorities in dealing with the question as it arises on their estates, both with regard to the clearance of insanitary areas and to the provision of new accommodation. Much more could, however, be done by private enterprise if certain existing disabilities were removed and further facilities offered for its development. The provision of rapid, frequent, and cheap means of transit from the centres of busy towns to suburban districts will have a most important effect upon the problem, making it profitable to build cottages in hundreds of localities where previously only large residences would pay, and encouraging the working man to give his family the benefit of purer air and more cheerful surroundings.

The exodus from the slums has already begun—but only begun. Its rate of progress must be considerably accelerated if all the next generation are to enjoy the benefit of healthy homes. The greatest hindrance of all remains while the whole of our local taxation, and a considerable part of our imperial taxation, are directly levied upon house property. Taxation is a

marvellous engine for affecting social conditions, and it has never been generally realised what tremendous results might flow from the removal of this great burden upon house property. The standard of town rents is still much above that which the poorest classes can afford to pay for accommodation which shall be both adequate and sanitary; and the necessary reduction in this rent standard—since building operations must yield a profit—can be attained in no other way than by a re-adjustment of taxation. With such a reduced rent standard it is quite probable that private enterprise would again prove adequate to meet the ordinary needs of the population for house-room.

PAPER 298.
No. 470.

SECOND PAPER.

SOME THOUGHTS ON THE HOUSING OF THE WORKING CLASSES.

BY HENRY INGLE POTTER, A.R.I.B.A.

I propose to take advantage of this opportunity to bring before your notice some "Thoughts" which have occurred to me in connection with this interesting and important subject, in full confidence that you regard it with a deeper interest than is aroused solely by the calls of your profession.

The preparation of schemes for laying out estates for the erection of small houses may well form our first consideration. These may be conveniently divided into two classes, "A" estates, where the "owner" is also the builder, and "B" estates, where the development is for the purpose of selling or letting in lots. My remarks may be considered to apply more especially to "A," and if these are to be commended, those interested in class "B" can be relied upon to follow them, at any rate to some extent. I wish to ask you, Is it always necessary to reduce the frontage allowed for each house to a minimum, in order to squeeze as many "Lots" or houses as possible on a given area? Five feet additional frontage, including the road opposite, adds—say, £10 to the cost of the site, but the extra width permits of a more com-

pact plan, with a reduction in the external and party-walls, and a saving, equal in value to the increased size of each lot can be effected in the cost of building. Frequently also the greater width of frontage would allow of some reduction in the depth of sites, as the usual long, low and objectionable outbuildings at the rear, with windows opposite to, and only a few feet from, the neighbours', can be wholly or for the most part avoided according to the amount of accommodation provided. The increased frontage, and the consequent removal of the compartments forming the outbuildings to a position under the main roof, immensely improves the prospect from the back windows, permits of a better circulation of air, and in certain aspects allows the sun to penetrate a window where a shadow would otherwise have fallen. It also provides a means of contending with the difficulty of providing a sunny aspect for all living rooms, and one that I fear is frequently shirked by architects. Take, for instance, a road running east and west. The houses fronting the south side, if they have a frontage of 20 feet, can be arranged one room deep only, and thus the living room can be provided with a window facing north towards the road and a second towards the back facing south.

Another consideration in determining the width of frontage is the provision of a passage 3 feet 6 inches in width for means of access to the backs of houses, frequently forming the approach to the space where coal is stored, for taking away house refuse, and possibly the contents of earth closets or middens, and a means of connecting the house drains with the public sewer. My own views as to the best means of providing access to the yards for these and other purposes, and of dealing

with the available ground between the back wall of one house and that of another, are as follows.

Provide and enclose with a light iron fence the necessary paved yard space of 150 square feet for each house, but make no further subdivisions, and let the remaining land adjoining the backs of all houses form one large open space. You would thus avoid the so-called gardens where frequently nothing can be persuaded to grow, and which are often made insanitary and unsightly by a collection of small sheds, fowl-runs, rabbit-hutches, pigeon-cotes, &c. By extending this open space in length from one cross street to another, you can, by means of gates at each end, provide a good approach for the delivery of coal and the collection of refuse, and thus avoid the expense of forming passages for the purposes between pairs of houses or at less frequent intervals. The sewer can also be taken down the centre and economically pick up the drainage at the backs of two rows of houses; and it is worth noting that in this class of property the soil and sink drains are generally on this side, with, as a rule, nothing more than a rain-water pipe in front.

This open space again, to which there is direct access from each yard, provides a recreation and playground for the tenants and their children, and thus relieves the necessity of the latter playing in the public thoroughfares. The width of this open space must of necessity vary, but take rather an extreme case, and suppose the depth of the land running from one road to another to be 100 feet, or for the site of one house 50 feet: a house with a forecourt occupies a depth, say, of 25 feet, the paved yard 10 feet, leaving a vacant space of 15 feet to make up the full depth of 50 feet for each lot or site. There is thus an available width of 30 feet

for the purpose of our recreation ground, which may be as much as 150 yards long, according to the distance of one cross street from another. This can be wholly or partially asphalted or gravelled and planted with a few trees near the centre. The cost of its maintenance should be very small, and the first cost is to some extent met by the saving in the amount of fencing forming the usual gardens.

The roads that are to become the public thoroughfares on these estates remain to be considered. There appears to be a tendency to increase the width of these. In my opinion 40 feet is ample for the convenience of all ordinary traffic, and the expense entailed by anything beyond this should not be borne by the "owner," but by the general body of ratepayers, who are supposed to benefit. If any width over 40 feet is desired for effect only, then I strongly favour setting back the building lines, which is a more economical method. The cost of making roads in the manner now insisted on by some local authorities adds very materially to that of developing estates, and thereby checks building schemes and raises the rents of small houses. It appears to me that the subject of street dedication might with advantage be carefully considered by experts. In localities where anything more than good tar macadam roads with properly curbed and channelled asphalted or gravelled footways are called for, then I venture to say that the general body of ratepayers, who benefit more than the occupiers of the adjoining houses, should contribute the amount of the extra expenditure involved.

These considerations bring me to my next branch of this subject, viz. the By-laws. These, as now adopted by most local authorities, have added very considerably to the cost of building small houses.

Where they are evidently framed to check unsound and insanitary dwellings no objection need be raised, but notwithstanding the stringency of some clauses with these objects in view, how often do they not fail in this respect? Is it not a fact that in districts where they are in force we can call to mind many instances of modern slums. My particular grievances against the by-laws which have usually to be complied with in preparing plans, are their lack of uniformity in different districts and their inconsistency. Instances of the former are as follows.

1. In many districts, nine-inch external and party-walls only permit of rooms on the ground and first floors, and if the buildings comprise more than two storeys these must be 13½ inches below the topmost storey; but in Sheffield, for instance, you may have nine-inch external and party-walls for two storeys and attics in the roof. This is a great advantage, since it provides space for a third bedroom without appreciably adding to the cubic contents of the house. But why cannot the capacity of a nine-inch wall be settled, as the strength of bricks and brickwork in different localities cannot be said to vary sufficiently to account for this lack of uniformity, and it is evident that the increased thickness is introduced for strength rather than for protection from the weather?

2. Why is it considered necessary by some authorities that the party-walls should be carried through the roofs, while with others they need not extend beyond the underside of the slates or tiles? The continuation of the party-wall for one foot above the highest part of any roof or gutter adds appreciably to the cost of a small building, and if not well flashed is a constant source of trouble, expensive to remedy, and the vertical

lines dividing the roofs at regular intervals considerably discount any efforts an architect may make to design a pleasing elevation for a long row of small houses. I presume the object of the by-law is to prevent the spread of fire, but the risk of this is small, and if the walls be carried up to the underside of the roof-covering material, I fail to see that they would not be adequately efficient in this respect.

3. In providing rooms in a roof, there is a considerable difference in the requirements of some districts as to the amount of vertical wall space and sloping and horizontal ceiling that should be provided. The conditions under which one occupies an attic may be considered to be similar in any two towns, even if they be 100 miles or more apart, and there should be no lack of uniformity in this respect.

Other points that might be referred to in the same way are the sizes and inclinations of drains, combined drainage, or the number of houses that may be connected to one drain leading to the sewer, and in the formation of private roads or streets.

In my mind, the inconsistency of the by-laws to which I referred exists more particularly in respect to the height of rooms. It is usual to find that rooms on the ground and first floors must be 8 feet 6 inches in height, and rooms in the roof 8 feet. But if plans are submitted showing rooms on the first floor, with a vertical wall, say, of 7 feet, and the remaining 18 inches in the roof, they will probably not be approved. In other words, what is considered to be a habitable room when used as an attic, is not permitted even in a much improved form on the first floor. This is an important point, because if it were possible to provide rooms on the first floor, partly in the roof, it would reduce the height of the building and its cost.

I think those who advise public bodies in these matters could well afford to make this concession, and at the same time be a little more consistent, for whereas great stress is laid on the heights of rooms on all floors, no mention is made of what is of equal importance, viz. floor areas. The distance from floor to ceiling is often—in this class of building—the longest dimension of a room. The minimum amount of cubic space is what should really be defined, and certain floor areas for the various rooms insisted on in addition to the height. The areas for different rooms as recommended by the Local Government Board are as follows:

Floor area,	Living Room	200	square feet,	height from	8 to 9 feet
,,	Scullery	90	,,	,,	,,
,,	Parents' Bedroom	120	,,	,,	,,
,,	Child's Bedroom	80	,,	,,	,,

This brings me to the consideration of the interior arrangement or planning of small houses, and I shall more particularly refer to some features which I fear do not always receive the amount of attention they deserve.

Aspect.—I have previously mentioned this, but I may add here that bay windows, even if shallow and only extending from the window board to the ceiling, help to catch the sun in difficult situations, and always form pleasing features on the exterior and interior, whether they be on the ground or first floor, and we should give the sun what assistance we can to reach the bedrooms as well as the living rooms.

One frequently finds the food store in the same corresponding position in a pair of houses. In one case it may be fairly cool, but probably not in both. If it is not possible to economically change the place provided for keeping food in each alternate house or in opposite

rows of houses, then, where the sun's rays can penetrate, provide a small pent roof or other form of protection.

Forecourts.—I think forecourts add materially to the comfort of tenants, and they also permit of bay windows next the street. The forecourt or front garden may vary from 6 feet to 20 feet, and, if the former, should be paved over entirely.

Ground Floor Rooms.—The accommodation that I prefer for working-class dwellings consists, on the ground floor, of one good large living room—without the so-called parlour—a scullery, pantry, coal store, w.c., and portable dustbin. The living room to be of not less area than 160 square feet, and as much more as possible, approached from the street by a small lobby with an inner and outer door; a small pent roof over the front door, or other form of open porch, can be provided if the contemplated outlay permits. The room to be provided with a bay window, a fireplace for cooking—at any rate during the winter months—placed where its heat can be felt with comfort, not omitting to provide on the plan a space for a dresser, a cupboard, a couch, and plot the position of the table and other furniture. Where strict economy is an object, let the stairs to the first floor be exposed to and lead direct from this room, and thus add to its cubic contents, in which case provide a door at the top of the stairs and so prevent the warmth of the living room escaping. Limit the number of doors leading from this room. Frequently one sees as many as four, but there can hardly be less than two, one giving access to the entrance lobby next the street and the other to the scullery.

The scullery can either be approached direct or through a small lobby. It contains a sink, a set-pot or copper, and, when possible, a small range, or perhaps a

gas stove, on which food can be cooked on hot days. One frequently finds the food store opening out of the scullery; this is not an ideal arrangement, but its position must be determined by circumstances, not the least important being aspect.

Let the w.c. be placed so that it can be approached through an open lobby where there is a free circulation of air, but do not necessarily make it a detached building forming a conspicuous and unsightly feature at the back of each house. If possible, let it form part of the main building where it can be approached with some comfort and decency, and provide for its being well ceiled. There is 8 feet 6 inches of height at one's disposal; a solid cast concrete ceiling, say 3 inches thick can be placed at a height of 7 feet 6 inches from the floor, leaving a ventilated air space of 9 inches between this and the ordinary ground floor ceiling level over.

The space for keeping coals should, I think, occupy a position on this floor, and be arranged so that it can be approached under cover. By putting it and the food store on this level, cellars are avoided. There appear to be local customs in respect to basements; these can, in some cases, be traced to the nature of the sub-soil, and in others to the fact that many sites have sharp fall towards the backs or fronts. Where the external wall must of necessity be carried to a considerable depth below the ground floor, it is scarcely possible to avoid cellars, but otherwise they should not be encouraged. They are nearly always dark, are frequently damp, badly ventilated, and unnecessarily large. They form storage space for things which tenants should not harbour or keep, and thus become insanitary.

I think most of us, when examining old, or even modern, property regard the inspection of the cellar a

something we should like to avoid, and if it be necessary to take dimensions, we readily leave them to some one capable of acting as our deputy.

First Floor Rooms.—Where an extensive scheme is under consideration, I think some variety in the number of bedrooms can be indulged in to meet the wants of large and small families. This might be limited to the provision of either two, three, or four bedrooms. The one or two extra being provided in the form of attics avoids the necessity of varying the size of the site or extent of the space occupied by the ground-floor rooms. Increased superficial area on the upper floor can also be gained by projecting over a bay window or porch below: this also helps to form a simple and pleasing feature on the exterior. Let each bedroom have a fireplace, decide on and draw the position of the bed when preparing the plans, and, if possible, provide a cupboard for each room. Angle cupboards, which only require a front, can frequently be used with economy and convenience, and in all cases let the cupboard fronts extend from floor to ceiling, and thus avoid a flat top, permitting the accumulation of dust where it cannot be seen.

The desirability of providing a bathroom is frequently a debatable point. I think in a scheme of any size the better way is to make up one's mind where the bath could be placed should it be wanted, and to fit up one in some of the houses by way of experiment.

A simple and inexpensive way of doing this is to arrange for it in the scullery. Let it be sunk and bedded in concrete about 18 inches below the floor and covered with a lifting flap, forming a platform raised about 8 inches. If it be thus placed, with its foot

towards the sink, it forms the floor space in front of this when the bath is not in use.

The cold water supply can be arranged economically from that provided for the sink, the waste discharges over the sink gully, and the hot water is obtained from the set pot. This method does not encroach on the floor space of the scullery nor add to the cost of water supply or drainage, and for these reasons and others is to be preferred to an alternative arrangement of placing it on the floor level with a hinged cover forming a seat or table.

By lifting it 8 inches as described, it raises the waste sufficiently to enable it to discharge over the sink gulley if the latter be fixed slightly lower than usual and prevents any water that may at times accumulate on the scullery floor finding its way into and fouling the bath.

In respect to the provision of space for ashes and house refuse generally, I think you will agree that this should be as small as possible, and that the portable ash-bin placed under cover, emptied at frequent and regular intervals, is far preferable to a brick chamber capable of accumulating a load or more of refuse for a considerable period.

Two types of houses to which I should like to briefly refer, and to which I believe all my remarks on planning equally apply, are double tenements and tenements over lock-up shops or other business premises. The former are suitable for the suburbs where land is costly, as it is possible, by arranging one house over another, to place two houses on an area of land not appreciably larger than that occupied in the ordinary way by one. By providing separate front doors from the street for each tenement and arranging the plans so that they are absolutely self-

contained and have nothing in common—all of which is quite possible and has frequently been done—they can be made very comfortable residences, and I am surprised one does not meet with them more frequently. There is a second type of so-called double tenement, which is really two ordinary terrace houses, each having a ground and first floor storey, but by providing one common entrance from the street for both tenants it is claimed that the nine-inch party-wall can be omitted. It has the advantage of effecting this economy, and avoids the arrangement of one family living over another, but it, of course, occupies a double amount of frontage.

The placing of dwellings over lock-up shops or other business premises forms one method of providing housing accommodation in or near centres of towns, with some prospect of financial success. The dwellings can take the form of separate houses, each occupying the same frontage as the shop below, or be arranged on the "Flat" system. Of the two, I prefer the former method, but the adoption of either depends chiefly on the number of people it is necessary to house. When, owing to the nature of their employment, certain men must live near the centres of towns, I am not acquainted with a better method of providing dwellings in a manner likely to show some return on the outlay. I consider that the living rooms usually placed on the ground floor gain in comfort by being raised to the first when they adjoin a busy street. The considerable depth of the shops permits of separate asphalte yards, placed over the back portion of these on the upper level, which also provide space for a drying ground and access to the dwellings, the approach to the asphalte yards or flats being, for all tenants, by one or more staircases leading from the street.

If time permitted I should refer at greater length

to what can be done in the way of new schemes in the centres of towns. As you are aware, there are but few cities or towns of any importance where distances are considerable without rapid and cheap tram services. These provide a great assistance to the solution of the housing problem, and every inducement should be offered to the working man to take advantage of this opportunity to live in the suburbs for the benefit of himself and his family.

The exteriors of houses for the working classes, when built on commercial lines, must of necessity be simple in character.

In outlying districts use the most easily procured local materials, and, for a pleasing effect, rely on the assistance of nature in the form of creepers. Though not so easy to treat picturesquely, I favour sash windows in preference to casements for this class of property; let them be divided into small squares, then renewals in the cases of breakages are only matters of a few pence. There is no doubt that "stucco" or "rough-cast" helps to form pleasing elevations, and, in addition, materially adds to the efficiency of a nine-inch external wall. If the colouring material applied to its surface requires renewing at regular intervals, it is a point in its favour; it brightens up the exterior for a very small cost. Other features to help make up the elevations are the porches, bay windows, dormer windows and chimneys. When designing a scheme of considerable extent, introduce a certain amount of variety, by means of different materials, varying the number of bedrooms on the upper floors, and by occasionally employing casement windows.

In conclusion, let me remind you it is our duty to devote our best energies to the work, when preparing schemes for these small houses, for the benefit of that large

community that occupies them. That our efforts in this respect are always appreciated by the occupants is not quite so certain. The better education of the poorer classes does not yet appear to have influenced their home life in the way one would hope for and have anticipated. It must, however, in course of time promote a keener sense of duty in this direction, and we have, when building for the present, to bear in mind the future, and, by means of well thought-out plans, enable and encourage to the utmost a better mode of living in the families forming the large working-class populations of our cities and towns.

Mr. HOWARD MARTIN (Fellow) said he had much pleasure in moving a cordial vote of thanks to Mr. Harper and Mr. Potter for their interesting and useful Papers. He very much regretted that the former was unable to be present, because his position at the head of the Statistical Department of the London County Council gave him special opportunities to observe certain aspects of the subject with which he dealt in his Paper.

All would, he believed, agree with Mr. Harper that it was a mistake for the Acts of Parliament relating to the clearing of insanitary areas in urban districts to insist upon the rehousing of the disturbed tenants on the areas cleared. As Mr. Harper's figures showed, that system had been an absolute failure as regarded the rehousing of the people actually disturbed. A very small fraction had returned to the place from which they had been turned out. Speaking from experience in and near London, a very large proportion of the tenants of those insanitary houses were not in regular employment; many of them, in fact, had no desire to be in regular employment, and were quite incapable of paying

the rent which decent occupation would cost; many of them, moreover, were of the sort who would render it impossible to keep any kind of dwelling decent after they had occupied it long. He was quite aware that those people must be housed somewhere, but where they were to be housed was only part of the extremely difficult problem which their condition presented in general. To insist upon housing them on the areas cleared, laid, as Mr. Harper had stated, an unnecessary burden upon the authorities, who had to pay heavily for the cost of rehousing, without securing any compensating advantage. To leave a wide discretion as to the position of the new houses to be provided would, it seemed to him, be of enormous advantage, not only as rendering it possible to provide, at a cheaper cost, the accommodation required and thus to diminish the burden upon the ratepayers, but also because it would really enable the authorities to deal with the altered conditions of the occupations of the working classes. So far as his experience in the neighbourhood of London served as a guide, there was in reality but little occasion for any outside interference with the supply of dwellings for the working classes. He thought it would be an almost universal experience that the quicker return obtained by building workmen's cottages and tenements, both to the landowner and the builder, led to the erection of far more houses of that class than were required. That might not be the case in all parts of England, and it was one of the advantages of the present meeting that there would be an opportunity of hearing the opinions of surveyors of experience in a good many different parts of the country.

There was one paragraph in Mr. Harper's Paper with which he quite agreed if it meant what it appeared to

mean, but he himself was not exactly sure what Mr. Harper really meant by it. He said it would be unjust to lay the burden of extra rates for rehousing and similar improvements entirely upon house property. "House property" includes both sites and buildings, but possibly Mr. Harper meant to exclude from that expression the sites on which house property stands, and if it was suggested that additional taxation ought to be laid on the site as distinct from the building, he did not think many present would agree. But if he meant the house and site together, he was quite sure all would agree with him.

If urban improvements required additional taxation, that taxation should be laid not only upon those who had invested their money in real property, but also upon those who gained one real advantage from all town improvements, those who had invested their money in trade, in railway shares, or in any other commercial concern.

With regard to Mr. Potter's Paper, he might say that, after struggling for more than thirty years with the problem how to build cheap cottages in which the working man could live, he had never been able to find out a way by which an urban house with more than 16 feet frontage could be built at a cost on which the rent a working man could pay would give a reasonable return. How a house with 22 feet frontage could be built and let at from 5*s.* 6*d.* to 7*s.* 6*d.* per week he could not understand. Nor could he understand how it was possible to provide the necessary accommodation without adding an annexe to the back part of the cottage. To include everything in the main building must, he thought, make the house less convenient and much more costly.

With regard to the w.c. accommodation, he was afrai the author of the Paper had allowed his kindness o heart to carry him away. He (Mr. Martin) did no think working people cared for extreme privacy i these matters. These places should open to the ope air. He objected, certainly, to their being included i the main building.

It would be a great mistake to curtail the back gardens and to allow the space thus gained to be use by the tenants in common. The back gardens migh often get into a most unsightly condition, but the peopl liked the privacy afforded, and they found the garden useful for drying purposes and for many other thing It would be a great drawback to the real welfare of the tenants if the gardens were converted into a kind of public playground.

Mr. WILLIAM WOODWARD (Fellow) said he was pleased to have the opportunity of seconding the vote of thanks to the authors of the two Papers, and of fully endorsing what Mr. Howard Martin had said. At a recent Meeting of The Institution, when Mr. Blashill read a Paper on London Street Traffic, he had made a remark, which he wished to repeat, with regard to the provision for the accommodation of displaced persons by the erection of new buildings. Bearing in mind his own experience of work undertaken by the London County Council, he quite appreciated the extreme difficulty of meeting the various Acts of Parliament in providing accommodation in the locality for displaced occupants. The wholesale demolition of property in Drury Lane and the vicinity, which had been carried out by the London County Council, had resulted in an enormous loss and also in the quite unnecessary dis-

turbance of hundreds of persons who might have lived in the houses for many years to come. He trusted that if the housing problem was to be taken up in Newcastle, the authorities there would bear that point in mind and not take in hand any such wholesale clearance. A partial clearance would be quite sufficient for the purpose, and progress might be made gradually year by year, not disturbing more persons than was absolutely necessary in order to carry out the public improvements.

The cost was, he thought, often unnecessarily en hanced by the requirements of the London Building Act. There should be a great deal more freedom than at present allowed in building houses for the poorer classes. Under present conditions, so much expense was incurred that the rents had to be fixed at a rate which the working man could not afford.

With regard to the municipal part of the matter—as to whether or not it was desirable that the municipality or other public body should undertake the building of dwellings for the working classes, as against private enterprise—he thought, himself, that if the Building Acts were not quite so stringent, private enterprise would provide accommodation equal in every way, and at much lower rents than was possible under municipal control. In the first place, the municipalities employed men who certainly did not carry out their part of the bargain. The great cost of dwellings for the working classes where the work was undertaken by the municipal authorities was consequent, to a large extent, upon the organised idleness of the very workmen for whose accommodation the places were intended.

With regard to Mr. Potter's Paper, he spoke no doubt as a Sheffield man, and as one fully acquainted with the obstacles to cheap building in that town. He

(the speaker) fully agreed with Mr. Potter as to the by-laws, but hardly so fully with regard to the necessity for greater consistency. He was rather against a hard and fast line being laid down, for he held that the case of each building should be considered upon its merits. Therefore he was opposed to the laying down of stringent and uniform rules, which might be proper in one street but quite unnecessary in another. It would be remembered that when the Bill of 1894 was before the House, the question of carrying up the party-wall above the roof was discussed, but the Act as passed made such a construction obligatory. He quite agreed with the reader of that Paper that while it might be a provision against fire it did not conduce to the picturesqeness of the building. And, moreover, it added needlessly to the cost of the building.

There was no doubt that, in London, a vast expenditure had to be incurred in making provision against fire, which, to his mind, was absolutely unnecessary. Statistics showed that the number of lives lost through fire was very small compared with the number lost through other accidents.

With regard to fire-proof structures, the London County Council, under the Factories Act and other Acts, made heavy demands, in deference to the fads and fancies of gentlemen who thought nothing of dipping their hands deeply into the pockets of the ratepayer, in order to provide against a contingency which might never happen. He quite agreed with Mr. Howard Martin that Mr. Potter had made rather unnecessary provision for secluding the entry to and exit from the w.c. He also thought Mr. Potter had dwelt rather too much upon the necessity of giving the rooms a southern aspect. He quite agreed that a southern aspect was very desirable,

but it was scarcely profitable to spend many pounds in altering plans in order to provide rooms with a southern aspect. Many of those present, who lived in houses more heavily rated than the dwellings put up for the working classes, had to be content to live in rooms with a northern aspect, and he did not know that they were any the worse for it.

Mr. J. WALTON TAYLOR (Fellow) said he supposed Mr. Potter's remarks were based more particularly upon the regulations in Sheffield and that district. In Northumberland and Durham the plans Mr. Potter suggested would not be allowed by the local authorities, as it was the custom in laying out building estates to provide for a back street as well as for a front street, and the width of the former varied from twelve to twenty-four feet, according to the by-laws of the district councils. In Newcastle the width was twenty feet. The back street was provided to give access for the cartage of coals, removal of refuse, and for drainage purposes.

The most common class of house in Newcastle for working men was the two-storeyed flat or tenement, which was quite distinct from the "flat" system in Scotland, where large blocks of many-storeyed buildings prevailed, with a common entrance and staircase, and where no separate backyard was provided. In Newcastle, the prevailing type of house for the working classes consisted (for the smallest ones) of two rooms and scullery on the ground floor, with separate front and back door, separate yard and conveniences. On the upper floor there were three rooms and scullery with the same separate entrances, yard, and conveniences, all quite distinct. The site varied in frontage from 17 feet to 19 feet. The next class consisted of three rooms and scullery

on the ground floor and four rooms and scullery on th upper floor, each with its own separate entrances, yard an conveniences as before mentioned, and usually having bath in addition. These had a frontage of 23 feet an a depth of about 60 feet, inclusive of a small garden plo in front. Houses of this type, but provided with a extra bedroom and a bay window in the sitting room were largely occupied by clerks, shop assistants, an small tradesmen.

He thought that if any Members from the South wer to examine those houses carefully, they would find then most convenient and sanitary, while affording all th privacy which had been advocated.

They were also remunerative and proved excellen investment, many people living very comfortably upo savings put into such property. Some bought one hous and occupied either the ground floor or the upper, letting that which they did not live in themselves. The usua percentage of profit ranged from five to six, and i some cases, where the property had been judiciously bought when the market was not inflated, the retur was even greater. When a man owned a house he too more care of it, as he felt he had a stake in the country and was much more contented. He urged, therefore that, as far as possible, each man ought to become th owner of his house. It was also a very great provisio for old age, and the old age pension problem would b solved if all working men would only be advised to tak that course.

He knew that, in Leeds and in many parts of York shire, the principal type of working-class dwelling wa the "back-to-back" house. These were not sanitary b any means. He believed they were condemned now, bu for economy he had seen nothing to beat them and h

supposed that was the reason why they were so prevalent. In that case there was no back way at all, but simply a front street on each side, with a space left between every six houses or so for yard and conveniences. He merely mentioned this to show the great variety of workmen's houses that existed up and down the country.

He would like to endorse the remarks made by Mr. Howard Martin respecting the house that Mr. Potter had suggested, and he quite agreed with him regarding the enclosure of the ground in the rear, so that each family, if they felt so disposed, might have a little private space of their own, which was a very important point.

Mr. Howard Chatfeild Clarke (Fellow) said a remark made by Mr. Woodward ought not, he thought, to go unanswered from The Institution. It had reference to the provision now made by the London County Council, and doubtless by other councils in the provinces, to prevent the loss of life by fire. The community owed much to the London County Council for insisting that proper provision should be made—more especially in factories—for dealing with an outbreak of fire. That very day the press contained news of a terrible fire over a baker's shop at Weston-super-Mare, by which six or seven persons had lost their lives. He thought, as human beings, all were bound to feel that reasonable protection against fire should be given, not only in the workshop, but in the home. He knew of factories where 200 or 300 girls were working, but which had only one small wooden staircase for escape in case of fire. Such a state of affairs ought not to be permitted in these days.

He quite agreed with the last speaker as to the insanitary houses which had been built and were still allowed to be built in Leeds. He was told that they were not now being built, but when he was last in that town, some three or four years ago, they were certainly allowed.

These houses, having windows on one side only, were deficient in ventilation. It was one of the most important aids to health to get plenty of light and air through dwelling houses.

The reader of the second Paper made what he thought was a very practical suggestion, namely, that sash windows were much more suitable in this class of dwellings than casement windows.

Referring to the question whether municipal authorities should build, one of the difficulties he saw was that when the authorities stepped in they practically shut out private enterprise. The stringent requirements of the County Councils really prevented men building with any chance of getting more than 4 or 5 per cent. return upon their capital, and they would not care to embark on such enterprises unless they could see a possible 8 or 9 per cent.—at least on paper. Therefore, the fact of the town doing the work did, he was afraid, almost kill private enterprise upon those lines, a position of affairs which had in fact driven the London County Council to build the large number of these houses that they were now erecting at Norbury and elsewhere.

He hoped that the use of electric trams would aid very much in solving the housing problem. Garden cities presented many practical difficulties, for workmen must, after all, be somewhere near their work. The chief difficulty to be surmounted was how to provide cheap houses in such a position that the tenants could get to

their work quickly, and in the solution of this he thought the trams would play a large part.

Mr. A. M. FOWLER (Fellow) said he was very much surprised to hear the back-to-back houses in Leeds described as insanitary. He had never heard them so described before—certainly not by Leeds people. But very few persons really knew what a back-to-back house was. In a discussion of the question by another body, he remembered that the speakers all based their arguments upon some of the old back-to-back houses which had been cleared away. The modern back-to-back house in Leeds was a very different thing from the old rookeries which everyone had heard about in the past, and which had been now cleared away. One speaker had complained that the insanitary house in Leeds had its living room on the ground floor, and the w.c. underneath the front door. Where could there be a better place than under the flight of steps outside (not under the front door), where there was plenty of air. Again, the working man in Leeds was a very different individual from the working man in other parts of the country. There was a tale of a recent traveller through Leeds, who asked a railway porter what there was to see there, and received the reply, "Well, I don't know of anything, excepting trade and religion." That reminded him of the high moral character of Leeds, and the good class of working man to be found there, from the very fact that there was no town in England or in Europe which was built up by the working man like Leeds. It was significant that there had been very nearly six millions of money turned over by the Imperial Building Society in constructing dwellings of which the working men of Leeds became the owners. Under these

conditions a man did not want to strike or to go from one town to another, and his house cost him less than it would do if he were paying rent. He could live in a good house for four shillings per week, whereas, under a landlord, he would certainly have to pay much more. The property was freehold. Leasehold property was unknown in Leeds, a city covering twenty-five square miles. These back-to-back houses were as sanitary dwellings as it was possible to build. In Cardiff and other places where it was obligatory to have space of a certain size at the back, the dwellings were much less healthy. They certainly had a back door and a front door, but the workman occupier was charged from six to seven shillings per week rent. To put himself into a position to pay that sum he was obliged to take in lodgers, and immorality was frequently the result. The man was not his own master. The back yard got filled with all sorts of rubbish, and in the course of time became a nuisance and a danger to health.

A back-to-back house with a 36-feet street in front, well paved, run with asphalte, dwellings four each side with a fifteen feet space at the end of each block of eight, was much better. And the working man would find more satisfaction and comfort in such a place than in a house, the high rent of which necessitated his taking in lodgers, even though he might have his own back-yard.

He was of opinion that municipal authorities ought to assist the working man to become the owner of his dwelling. Corporations provided parks and trams, free libraries, and art galleries. Why should they not have the power to advance money for this purpose in the same way as the Imperial Building Society of Leeds ?

When a man got a house of his own he became

a better citizen. There was not the slightest doubt about that. The problem of housing the working man would never be solved until he was made to feel that he belonged to the soil. He would advocate a bath in every house, for he would have the working man as clean as my lord and lady. If there were a man down with cholera, the germs of contagion would float for miles across the country, as the pollen of the thistle, and settle perhaps upon a well-cultivated field. All were of one flesh and blood, and danger to any section of the community meant danger to all.

THE PRESIDENT said the provision of homes for agricultural labourers was a very important matter, though perhaps not quite so large a one as that of dwellings for the labouring classes in the towns. It concerned an industry closely connected with the surveyor's profession. The rent a man could pay depended upon the wages he received, and the chief difficulty to be encountered in building agricultural labourers' dwellings was to make them pay. The difficulty had been increased very considerably by the present requirements under the Public Health Act. A great many people came into the towns, mainly because their houses in the country had fallen into bad repair, but if the homes could be properly kept up the people would not be so willing to leave them.

The vote of thanks, having been put to the Meeting, was carried unanimously.

PAPER 299.
No. 471.

THIRD PAPER.

AGRICULTURE IN CUMBERLAND.

A COMPARISON OF 1900 WITH 1850.

BY J. SMITH HILL, B.A., B.Sc. (Lond.) (Associate).

The area of the county is a little short of a million acres, and slightly more than a quarter of this consists of mountain and heath land used for grazing. The total extent of land under crops and grass is 606,919 acres, of which 548,904 acres are occupied by tenants and 58,015 occupied by owners. Before 1850, between the years 1780 and 1820, there had been the enclosure of a large number of commons. At the beginning of the nineteenth century, between Carlisle and Egremont, a distance of 43 miles, there were 34 or 35 miles of open common, which by 1850 had been practically all enclosed. The common system has left its traces in the "out-gangs" or narrow portions of land by which the moors were approached from the villages and in the "crofts," which were enclosures made in very early times, close to the farmhouses.

Size of Farms and Farming.—The farms may be divided into four classes: (1) Farms up to 100 acres worked chiefly or entirely by the occupier's family: (2) Farms from 100 to 300 acres, on which the occupiers depend to some extent on the labour of their own families: (3) Farms from 300 to 500 acres; (4) Hill

sheep farms. Small holdings under 50 acres number 3,943, or 50 per cent. of the total number of holdings of 7,601. This feature has been maintained since 1850, and has allowed the industrious farm servant in time to take a farm of his own, and has been a factor in preserving a good quality of labour. The yeomen who farm their own lands are known as "statesmen," or rather "estatesmen," and in 1850 a large number of this class farmed from 40 to 100 acres. "This class of men "has been gradually diminished in numbers for many "years, and the position of some of them is now worse "than that of tenants, owing chiefly to the charges "which they or their ancestors have put upon the land. "It is difficult to say whether the larger proportion of "them are mortgaged to such an extent that they are "paying more in the shape of interest than neighbouring "farmers are in rent. It is in the natural order of "things that mortgages should be put upon these small "properties, for when a statesman dies and leaves the "property to his eldest son he is bound to make some "provision for the widow and unmarried daughters." *

Rotation.—The rotation followed in the county is chiefly a five-course shift: (1) oats, (2) roots, (3) oats seeded, (4) grass seeds mown, (5) seeds grazed. Occasionally the rotation is lengthened by keeping the seeds down for a longer period. The main difference in 1850 was the amount of land bare fallowed for wheat. The small area of wheat and barley now grown is

* For instance, in the parish of Abbey Quarter the "decrease of yeomen "practically began at the commencement of the nineteenth century, the "decrease from 1780 to 1812 being 25 per cent., from 1812 to 1837 "21 per cent., from 1837 to 1864 30 per cent., from 1864 to 1894 37 per "cent." (Royal Commission on Agriculture. Report by Mr. Wilson Fox on the County of Cumberland, p. 32-3.)

taken after the root crop. The chief objects are th grazing and feeding of stock, breeding of horses, and th cultivation of arable land for the growth of corn, root and seed grass hay for sale. The farm-buildings ar usually unpretentious in style, and lack the architectura picturesqueness to be seen in the south. "In a count "where there is a great number of small farms, man "of which are rented from people in a comparativel "humble position in life, the buildings are, in a numbe "of cases, of a somewhat rough and ready description "But if the small farmhouses of grey (or red) sandston "look somewhat humble to those accustomed to mor "imposing looking buildings in other counties, no on "can fail to be charmed with the homely and scrupu- "lously clean interior, with its stone floor, the larg "open chimney, the oak furniture, the low ceiling wit "the oak beam, and last, not least, the hearty welcome "and then the prolonged 'crack' over agricultura "matters, which also involves 'taking something which "'won't hurt you.'" *

Leases.—In 1850, the length of leases was commonl for 7, 9, or 14 years, with an increasing tendency fo longer terms. But leases were by no means universal conditions of letting signed by both parties taking thei place. Verbal agreements were by no means rare "During the 36 years' stewardship of Mr. John Benn "ending in 1850, under the late and present Earls o "Lonsdale, very few written contracts for farms existe "among the numerous tenantry, and rarely any mis "understanding took place." † The Surveyors' Institu

* Wilson Fox, Report, p. 11.

† Essay on the Agriculture of West Cumberland, by W. Dickinso 1850.

tion was not in existence then! *Tempora mutantur nos et mutamur in illis.*

The conditions of letting in the course of the 50 years have altered but little, with a general tendency for allowing farmers a freer hand of recent years. Shortly, these are: the five or six years' rotation; entry chiefly at Candlemas (February 2nd), some at Lady Day; half-yearly payments; payment of all rates and taxes by the tenant, though some landlords in 1850 paid two-thirds of the county rate; the keeping all in repair except walls, roofs and main timbers; the not having more than one-third of the arable land under corn crop; fallow or green crops between every two corn crops, and the sowing the latter down with grass seeds and clover for two or three years; the not mowing the arable lands twice in the first year, nor again in the same course; the not ploughing meadow or old grass land; the keeping a full stock of cattle, &c., to the end of the term; spending the vestures on the premises; no hay, straw, turnips, dung, compost, or other manure to be sold or removed off the farm unless by special agreement. In 1850 the last restriction was generally enforced, meadow hay being scarcely ever allowed to be sold, and seed hay but seldom. But now, owing to the liberal use of feeding cakes and manures, tenants are not so restricted. Mr. Thomson, agent to Sir Wilfrid Lawson, says: "Tenants all sell more or less. If a man farms well, "we do not restrict. We buy hay and straw from the "tenants." Mr. F. Punchard, F.S.I., agent to the Underley Estate, says: "Good and reliable tenants have all the "freedom of cropping and sale which they need or "desire, except possibly for the last year or two of "their tenancy. Applications for leave to depart from "stipulations or covenants on these heads are rarely

"refused, except the benefit is likely to go to third
"parties. There is no serious demand for unrestricted
"liberty."*

At the present day the tenancies are usually held under yearly agreements with a twelve or six months notice, though some leases of from five to seven years do occur. The present rents, according to Mr. Punchard are: on better class farms, 20*s.* to 30*s.* per acre; medium land, 15*s.* to 20*s.* per acre; hill farms, 7*s.* to 12*s.*; fell land, 2*s.* 6*d.* to 4*s.*†

Labour.—Farm servants are usually hired by the half-year at Whitsuntide and Martinmas, and they live and board in the farmhouses. These are always unmarried men. Married men live in cottages on the farm, or in villages, and are nominally engaged by the week. The hirings take place at Carlisle, Penrith, Cockermouth, and Wigton chiefly; the servants stand in the public streets at certain definite places, and used to indicate they were needing situations by having a piece of straw in their mouths. It is an important concern on the part of the servant to ascertain from his fellows if a particular farm is a good "meat shop," referring to the quality of the feeding of the men. During the hirings the servants have almost a week's holiday, and it is regarded as a period for amusement and for social intercourse. Mr. Wilson Fox says, "The "quality of labour in Cumberland is good and will com-"pare well with that of other districts, although a num-"ber of employers state that it is deteriorating, chiefly "owing to the most capable men seeking situations in "towns. They are paid according to merit, and not all

* Wilson Fox, Report, &c., p. 16.
† Wilson Fox, Report, p. 12.

"on the same level, whether good, bad, or indifferent, as "in the eastern counties, and the wages which the more "capable can command enable them to look forward to "the time when they can take a farm for themselves, "with the possibility in the end of attaining a position "of some influence and importance."* The wages for best men range for the half-year from £17 to £18; second class men and youths, £8 to £12; boys, £5 to £8. Best women, £9 to £12; second class women, £5 to £8; girls, £3 to £8. This includes board, lodging and, generally, washing. Married men living in cottages receive a minimum wage in cash of 18*s.* per week—equivalent, with house and garden, potatoes, and coals carted, to £1 or 23*s.* per week.

Customs of the Country.—Owing to the time of entry on arable farms being in February, the tenant has to sink very little capital in tillages, &c., and thus can employ almost the whole of it in working the farm. The outgoing tenant must keep up his usual and regular stock of horses and cattle until the end of the term, and then the remainder of the unconsumed vestures of last year's crop is either (A) taken by the incoming tenant at a valuation, or (B) sold or removed, according (in the absence of agreement) to the terms upon which the tenant entered.

Where there is an agreement of tenancy, it is usual to bind the tenant to consume at least half of the last year's crop. The manure is left for the incoming tenant free of charge. The outgoing tenant is allowed the cost price of clover and grass seed sown the preceding spring, if kept uninjured. Little capital being thus necessary beyond that to work the farm, considerable responsibility

* Wilson Fox, Report, p. 42.

lies upon the agent in selecting suitable tenants, while the custom enables the industrious occupier to take a larger farm from time to time, his capital all the while being remuneratively employed. The old custom of having a boon ploughing on the entry of a new tenant is still kept up in the county.

Fallows.—Bare fallowing for wheat was more prevalent in the fifties than in later years owing to the high price obtained for wheat and to the idea that land was thus better cleaned from weeds. But even then the growth of green crops, where practicable, was increasing. In 1874, 5,414 acres were bare fallowed, while in 1903 the total only reached 516 acres.

Turnips and other Green Crops.—In 1850 Mr. R. Atkinson, of Bassenthwaite, the patriarchal agriculturist, as Mr. Dickinson calls him,* was still living. He was the first in his early days to venture to sow as much as four acres of turnips in a year, for which departure from the ways of his ancestors and his neighbours he was derided as a greenhorn. Before his death he saw the practice universally adopted, so that it was recorded in 1850, "now every farmer in the district, except a "few shepherds, aim to grow as many turnips as will "feed a few cattle for the butcher, and allow a portion "daily through the winter to the rest of the stock, as "well as for feeding sheep on the ground on many "farms." Though in the memory of persons living in that year, not more than 10 acres would be grown in the western half of the county, about 1,473 acres of turnips and 328 acres of rape were sown in 1849, and consumed by sheep on the ground, besides an annually increasing quantity drawn for other uses. In 1903 the turnip crop

* W. Dickinson, Essay, p. 14.

figures at 29,152 acres, and the produce at 12·16 tons per acre. Some good crops were grown in the early days of our review. Mr. Jefferson, of Preston Hows, in 1847 grew 47 tons per acre, the crop being manured with 25 loads of dung and 2 cwt. of guano; dissolved bones—a new manure to the county—were used in 1849 with as good results.

"Fingers and Toes," as the disease was called, was just coming into notice in 1850, and curiously coincident with the increased use of dissolved bones or superphosphate. The nature of the disease was not understood and it was thought to be caused by a maggot which could continue three years in the soil.*

Mangolds for spring use were sown in 1850 in moderate quantity on almost every farm. The area cropped has been somewhat variable and is not now large; in 1874 the agricultural returns give 1,382 acres, in 1894, 982 acres, and in 1903, 2,958 acres.

Potatoes.—Before the great failure of the potato crop from disease in 1846, West Cumberland was noted for the quantity and quality of its potatoes and used to supply the "White Kidney" variety for seed purposes to Ireland. The failure and uncertainty of the crop at that time appears to have stimulated the growth of turnips instead. In 1903, 8,219 acres were grown, with a yield estimated at 5·52 tons per acre, which was 1½ tons less than the yield of the previous year.

Grain Crops.—Wheat, as previously noted, was much more extensively grown in the county about 1850 than it is at the present time. Even in the seventies the total acreage was 21,904 acres, while the return last year was only 1,859 acres. The diminution has taken place

* It was not until 1876 that the true nature of the organism causing "finger and toe" was demonstrated by Woronin.

from natural and economical causes, the climate being unsuitable and the crop unremunerative. Even early in the nineteenth century William Cobbett, in one of his Rural Rides through the north, said that "at every step "through Cumberland he found the soil crying out "Grass! Grass! and that the occupiers perversely insisted "on its crying Corn! Corn!" Owing to the world-wide competition in growing wheat, has not Cumberland been brought at the present day, and like Denmark successfully, to produce that for which it is best adapted, viz., the grain (oats) that walks to market? In 1850 the yield of wheat was on the average 8 Carlisle bushels per acre. The Carlisle or Cumberland bushel is the local measure for grain, and is equal to 3 imperial bushels. It is stated that the produce per acre of 6 Carlisle bushels in 1820 was increased by 1840 owing to more wheatlands being drained and through the use of artificial manure, so that on the better soils 10, 12, and 14 or more Carlisle bushels were obtained. The average price per imperial quarter in 1850 was in London, 44*s.* in January, 42*s.* in May, 47*s.* in August, and 44*s.* 6*d.* in December. This was considered a very low price, and caused a large quantity of wheat to be ground as food for stock. The duty on foreign corn was 1*s.* per quarter. In 1903 the yield from the diminished acreage is returned at 30·26 bushels imperial, or 10 Carlisle bushels, average price 26*s.* 9*d.* per quarter.*

Barley has never been an important crop. The price in 1850 was 23*s.* to 24*s.* per imperial quarter. In 1874 as much as 7,433 acres were grown, but in 1903 its culti-

* In 1847 between February and August the price had varied from 76*s.*, rose to 105*s.* in May, and fell to 64*s.* in August. Foreign corn was duty free. In 1853 the price again rose, and ranged between 45*s.* and 76*s.* in London.

vation has diminished to 1,594 acres, giving a yield of 31·36 bushels (imperial) per acre.

Oats are essentially the grain-crop of the county. In 1850, the return was variable—from 7 to 8 to more than 20 Carlisle bushels per acre, with an average price of 16*s.* to 18*s.* per quarter in that year of low prices for corn. In 1874, 68,281 acres were cultivated, and in 1903 71,317 acres, with a yield of 44·24 bushels imperial; the average price being 17*s.* 2*d.* per quarter. The average of 1902, the best of recent years, was 49·30 bushels per acre. In 1850, the potato oat was usually grown, though the old Scotch, or Angus, the Hopetoun, and black Tartarian were used to some extent. The county has the distinction of being the place of origin of the potato oat, named, though erroneously, as having appeared among potatoes. The *Carlisle Journal* of May 18th, 1799, states that it first occurred " in a field of wheat at Threapland, in this " county, belonging to Mr. Daniel Jackson, of that place. " The reapers, when cutting the wheat, were struck with " the luxuriant and singular appearance of three stalks of " oats, all of which had been produced from one grain; " they pulled them up and took them home, found they " contained 150 grains, which were carefully preserved " and planted in the garden the next year. Mr. Jackson " declares he can by no means account for the seed " coming into his ground, nor did he purchase his seed " wheat that year, nor get any manure from any other " place." I have had myself the opportunity of confirming this statement, through being associated in marriage with the family of Mr. Jackson's descendants, among whom the tradition of the origin of the potato oat on the farm at Threapland has been preserved.

At the present date the potato oat is still the variety

in general use, to which may also be added the Waverley, New Market, and Storm King.

Grass Land.—Cumberland is essentially a grass-producing county. I have already referred to William Cobbett's observation. Mr. Wilson Fox * says: "One "great advantage which the agriculturists of Cumber-"land and Westmoreland possess over those in the "eastern counties is the comparatively short time which "pasture takes to grow, for not only the soil, but the "climate, with its plentiful rainfall and humid atmos-"phere, is particularly suitable to it. In the eastern "counties it was frequently said, during my inquiries "there, that pasture took at least 15 years to make. "But in Cumberland a good pasture will grow in seven "years or less on fair land, if proper attention is paid "to it, and this circumstance of course is of great benefit "both to owners and occupiers."† Cumberland farmers at the present day are doing as the Danish farmers do, viz. producing crops to feed stock, instead of endeavouring to compete in corn-growing with soils more specially adapted for cereal cultivation. And just as the Danes have, in the space of some 50 years, transformed their country from an impoverished corn-growing to a comparatively wealthy stock-raising country, so on similar lines farmers in Cumberland have combated the depression and made their county, as it naturally should be, a great stock breeding and feeding area. From the returns of 1903 the grass land constitutes 109,790 acres in clover and rotation grasses and 352,241 acres of permanent pasture, a total of 462,031 acres; or, roughly

* Report for Royal Commission on Agriculture, p. 7.

† The rainfall differs greatly at different elevations in the county, being much less near the coast (about 34 inches per annum) than more inland among the slopes of the mountains of the Lake district.

speaking, two-thirds of the cultivated portion of the county is devoted to pasture and the production of meadow and lea hay. Since 1874, the grass land has increased 63,986 acres.

Italian rye grass, first introduced into Scotland in 1840 by Lawson * was by 1850 beginning to be used considerably in Cumberland. A suitable mixture for one year's hay, recommended in 1850, was perennial rye grass 1 bushel, Italian rye grass ½ bushel, cocksfoot ½ bushel, timothy grass 3 lbs., red clover 5 lbs., white clover 3 lbs. A somewhat similar mixture, but with about half the quantity of grass seeds, is in use at the present day with the addition of alsike clover (trifolium hybridum). †

Manures.—As regards farmyard manure, it is of interest to note in the intelligent essays of William Dickinson ‡ the advice tendered for its conservation. He advocates the simple method of sprinkling two or three layers of soil and a few inches more to cover the heaps. And Mr. Dickinson adds, with the idea of preserving the fertility of the soil as an asset of the landlord, that "tenants who do not see the importance of "this should be taught by stringent clauses in the lease." It is 50 years since this was written, but though the more elaborate system of Mr. Mechi, with its liquid

* *Best Forage Plants* by Stebler, p. 36.

† This was brought to England by G. Stevens from Sweden in 1834 (*Best Forage Plants*, p. 84). It was first sown at Meadow Bank Nursery, Edinburgh (Messrs. Peter Lawson and Sons), on 17th April, 1834, and in 1851 Messrs. Lawson state that "hitherto from the "comparative high price of the seed it has not received a fair trial "in field culture." Mr. James Hunter, of Chester, who has kindly furnished this information, says he remembers in 1860 it was sold at about 2*s.* per pound, and was then in general use.

‡ *Essay on Agriculture of East Cumberland*, p. 20. 1853. By W. Dickinson.

manure tanks and pipes to carry the stream to outlying parts of the farm, has been to some extent tried—and found wanting, owing to the expense—the simple method advocated in 1850 has not become general. Yet it has received abundant confirmation by the careful experiments made on behalf of the peasants of France by M. Grandeau, the distinguished Inspector-General of French Agricultural Stations. *

A study of the agriculture of the middle of the nineteenth century is the more interesting, as artificial manures were then beginning to be used. It was in 1840 that guano was first introduced into this country by Lord Derby, and by 1850 the importations into England amounted to 200,000 tons. In 1849, 100 tons of guano were used in the parish of Bootle alone in the county. Bones were also used to some extent, especially for turnips. In Cumberland the stimulus also was felt and experiments were carried out as to the most profitable use of the manures, such as the comparison by Mr. Ainsworth, of The Flosh, of guano with sulphate of ammonia on turnips, and the manuring of wheat by Mr. Spedding. From those of the latter we learn that nitrate of soda cost £16 4*s.* per ton (present price £11). African guano £8 10*s.* per ton, Peruvian guano £10 17*s.* 6*d.* per ton, sulphate of ammonia £20 per ton (present price £13), and rape dust £5 5*s.* per ton. The use of dissolved bones as a turnip manure by Mr. Jeffereson in 1849 was previously referred to. It was only nine years before that Liebig in 1840 had discovered the action of sulphuric acid on bones, converting the phosphate into a more soluble form. The product was called dissolved bones or superphosphate,†

* *Journal of the Royal Agricultural Society*, Dec. 1893, p. 828.

† *Journal of Agriculture*, 1849, p. 644. *Journal of Royal Agricultural Society*, 1847, p. 242.

though the latter term was afterwards restricted to the product of the action of sulphuric acid on mineral phosphates. The price of dissolved bones was £7 per ton. The present price of pure dissolved bones is £5 15*s.* per ton, and that of mineral superphospate £2 15*s.* per ton (26 per cent. soluble). Potash manures do not appear to have been used in the county in 1850, though their use is advocated in the agricultural journals. Sulphate of potash cost £18 per ton,* its present price is £5 per ton (27 per cent. pure potash). All these manures have stood the test of time as to their value, and others unknown in 1850 may be added to the list of those in use in the county at the present time, such as kainit (£2 11*s.* 3*d.* per ton), basic slag (£2 7*s.* 6*d.* per ton), ground lime (18*s.* per ton).†

Lime (now 11*s.* per ton) was extensively used in 1850, and Mr. Dickinson gives the prices at 13 kilns throughout the western division of the county at prices varying from 5½*d.* to 1*s.* 1*d.* per Carlisle bushel, a cart-load containing 5 Carlisle bushels. At the present day, after a period of considerable diminution in the use of lime, some return is being made to its application, especially in the form of ground lime in small doses.

Draining.—Between 1824 and 1850 the draining of the land enclosed under the various enclosure Acts took place extensively, horse-shoe tiles with soles being employed. The usual size in 1850 was 3 inches, about 13 inches long. The price was 26*s.* per thousand, soles 10*s.* per thousand. Sometimes the soles were wooden —of alder and larch—or made of refuse slates in the

* *Journal of Agriculture*, 1849, p. 460.

† The present day prices have been kindly furnished me by Mr. Henry Thompson, the Secretary of the Aspatria Agricultural Co-operative Society.

neighbourhood of the roofing slate quarries. When tiles first came into use, one of Sir Wastel Brisco's tenants on the Crofton Estate, near Wigton, refused his landlord's offer to put in any of "them pot things" on his farm. The cost of draining per acre was estimated to be as an average from £4 10*s.* to £5. Mr. Norman, Sir Wilfrid Lawson's agent at Brayton, in a letter to Mr. Dickinson in 1850* said: "We have taken "up some thousand of roods of old drains, put in some "20 or 30 years ago, from 18 inches to 30 inches in "depth, and sunk them (all cross or catch-drains) from "3 to 5 feet deep, as the land required. In one field at "Brayton which was never known to yield more than "8 or 9 Carlisle bushels of wheat per acre, after sinking "the drains from 18 inches to 4 feet, summer fallowing "and liming, we had 15 bushels per acre, an excellent "crop of hay the year following, which is now grazing "well." The cost of 3-in. tiles at the works is at present 45*s.* per thousand, 2½-in. 32*s.* 6*d.*, and it is estimated that, owing to the increased cost of labour, draining costs £7 10*s.* 0*d.* to £9 an acre.

Farm Implements.—As in Scotland and Northumberland the one-horse cart has held sway up to the present time, though two-horse carts and wagons have at different times been introduced. It was decided in 1851 that the question of the cart being more economical than the wagon was undoubtedly settled,† and that "Scotch and Northumberland (and I may add Cumber-"land) farmers by using one-horse carts save one-half of "the horses which south country farmers still string on "to their three-horse wagons and three-horse dung carts."

* *Essay on Agriculture of West Cumberland*, p. 38.

† *Encyclopædia Britannica*, article "Agriculture," p. 323. *Journal of Royal Agriculture Society*, vol. xii. (1851), p. 617.

The one-horse cart is light and easy of draught, and weighs about 6 to 8 cwt. and can carry 30 cwt. without injury. In 1850 wooden ploughs (Harrison's) were used, though the majority were of iron. Drills for turnips and wheat and for depositing artificial manures were gradually creeping into popularity. The Cumberland clod-crusher or "scrubber" was in general use, as now; it is made of rough planks set anglewise and shod with iron, and its principle in working is that of a rasp or grater, and it combines the uses of both a roller and heavy harrow. The great contrast between 1850 and 1900 is in the harvesting implements. At the former date the only implements in general use were the reaping hook or sickle and the scythe. Indeed, the latter was only just making its merits known and "becoming more of a "harvest tool as people get acquainted with its uses and "merits." It was found worthy of a discussion at the Carlisle Farmers' Club in 1851, where two gentlemen gave their experience in favour of the scythe, one putting the comparative cost of mowing the grain at 5*s.* 5*d.* an acre, against reaping at 8*s.* 9*d.*; and the other the cost of mowing at 4*s.* 11*d.*, and reaping 8*s.* 4*d.* per acre. In 50 years the hook has been replaced by the scythe, the scythe has given way to the manual and self-delivering reaper, and the latter has now yielded largely to the harvester and self-binder. Cumberland may claim some part in the invention of the reaping machine; for in 1820, Joseph Mann, of Raby Cote, near Wigton, invented a self-delivering machine, which was exhibited at the Highland Society's Show at Kelso in 1832. It was on the circular cutting principle and delivered the corn in a swathe by means of revolving rakes; it cut a breadth of 3½ feet, and with

one horse could with ease accomplish 10 acres a day.* The machine was used at Brayton on the estate of the late Sir Wilfrid Lawson on the 13th of August, 1834.† A few hay-making machines were to be found in the Keswick district in 1850, but they were newly introduced implements. The threshing machine, invented in almost its present form by Andrew Meikle in 1798, was much in evidence in Cumberland by 1850. In West Cumberland there were no less than 306, 7 of which were worked by steam, 1 by wind, 71 by water, and 227 by horse power, and a few of the last were travelling machines.‡

The chief advance in the present day is that the travelling machine is the steam locomotive. Steam cultivation was first tried in Cumberland in 1862 by William Lawson, at Blennerhasset. A single engine with the anchor system was first used. The first appearance of a self-propelled engine in the district excited considerable interest. When it arrived at the railway station at Aspatria the prophets said, "She'll "nivver git up Thompson's Brow!" After that was safely accomplished, the remark was, "She's gitten up "but she'll nivver pleugh!" and finally they uttered a prognostication which turned out to be correct. "She's "got up Thompson's Brow an' she's pleughing, but she'll "*nivver pay*!"§ In 1866 the single engine was superseded by the double engine system. The machines were christened Cain and Abel, and for some 14 years were well known throughout the county by their steam-ploughing operations. Cain seems to have been branded

* "Essay on Reaping Machines," by (Sir) Jacob Wilson, F.S.I., in *Highland Society's Transactions*, 1863, p. 123.

† *Correspondence N. B. Agriculturist*, June 25th, 1902.

‡ *Essay on West Cumberland*, Dickinson, p. 62.

§ *Ten Years of Gentleman Farming*, by William Lawson, p. 42.

from the first, for though both were built alike and apparently of the same quality Cain turned out a much worse engine than Abel. When a breakage happened it was usually something belonging to Cain. It was Abel's misfortune, however, to break through a bridge at Dearham over the Maryport and Carlisle Railway. One wheel projected so far through as to prevent the engines from passing on one line of rails below, and but for a strong girder would have crashed on to the rails.* After this, in 1872, Mr. Lawson sold the tackle to a limited liability company, by whom, after 8 years' operations, not financially successful, it was dispersed.† At the Royal Agricultural Society's show at Carlisle, in 1902, a motor-plough was entered but not exhibited, and last year at Park Royal the Ivel agricultural motor was shown, and according to the official report "this tractor "has come within the range of what may be considered "a practical agricultural machine."‡ It is quite possible that the present time may mark the introduction of a form of traction which may become a great factor in the agriculture of the future.

Cattle.—The indigenous breed of Cumberland was the "longhorn," and one variety called the Lyzack breed was nearly pure white with fine spreading horns; they were sought after by cattle dealers for "topping" the

* *Ten Years of Gentleman Farming*, by William Lawson, p. 65.

† Mr. J. Rickerby, Engineer, Carlisle, kindly informs me that the tackle was afterwards sold by him to the late Sir R. Musgrave, of Eden Hall, where one of the tenants used it successfully to break up 50 acres of the roughest land in Cumberland without a single breakdown. They were then sold to an old iron dealer in Leeds, but on the way to Langwathby Station Cain came to an untimely end through the haulage chain breaking on the top of Langwathby Bridge over Eden. He ran over a wall into a low-lying field several feet below the road level, and got so seriously damaged that he was not repaired again. It is possible that Abel is still working as a fixed engine.

‡ *Journal of the Royal Agricultural Society*, vol. 64 (1903), p. 229.

lots when taken for sale in the Yorkshire markets. By 1850 the longhorn breed was kept only by a few and had given way to the shorthorn. That the early maturity qualities of the latter were not altogether appreciated is seen by their being described as "soon ripe, soon rotten," and also because it was thought that the constitution of the shorthorn could not compare with that of the older breeds of the county, "any more than a greenhouse plant can compete on exposure with the heather of the hills." The falsity of these early impressions is now proved by the great reputation Cumberland-bred shorthorns have gained throughout the world, many going to foreign countries and the colonies for breeding purposes, while their qualities as dairy-cows is seen by the numbers which go to town dairies such as Edinburgh, and readily obtain £25 to £30 for such purpose.

The following gentlemen have been or are noted breeders, and have done much to improve the standard in the county: Lord Brougham and Vaux, Sir Wilfrid Lawson, Bart., M.P., Mr. W. Graham, Eden Grove, Mr. S. P. Foster, Messrs J. and J. W. Barnes of Wigton, Mr J. S. Harris of Calthwaite, Mr. Parkin-Moore of Whitehall, Mr. J. C. Toppin, Mr. E. Ecroyd of Armathwaite the late Mr. John Barnes, Wigton, the late Mr. John Todd, Mereside. Professor Wallace, of Edinburgh, speaking at Cockermouth on February 6th, 1899, said "They had got in Cumberland a breed of shorthorns "which for milk and beef production combined was "unequalled in any part of the world; he had seen a "great many milk cattle and meat-producing cattle, but "he had never seen anything to beat the Cumberland "shorthorns." Even in 1850 large numbers of cattle were sent out of the country, many being taken to Edinburgh and sold to the Lothian farmers and to the

Scotch distilleries for feeding off, as well as to Liverpool, Manchester, and Newcastle markets. In 1849, 7,709 head of cattle were landed at Cumberland ports from Ireland and the Isle of Man and sold for £5 to £7 a head. The number of Irish cattle landed in the country at the present day and fed off there must, according to a good authority, be something over 20,000 a year, and costing from £9 to £14. *

It is of interest to note that, in 1850, the use of lactometers or graduated glass tubes for indicating the quantity of cream produced by each cow was recommended, and Mr. Dickinson adds wisely, "if used generally would "be the means of affecting changes in breeding which few think of." The barrel and plunge churn were then in general use. At the present day the separator has found its way into many farmhouses, and with the butter-worker and Scotch hands are dairy implements which were unknown in the middle of the last century. Creameries are likewise a feature of modern dairying in the county. At Low Row, between Carlisle and Newcastle Carrick's Dairy Company is located, while at Aspatria there is the West Cumberland Dairy Company.

Foot and mouth disease and pleuro-pneumonia visited the cattle stocks of the county about 1850, the former

* Return showing the number of cattle exported from Ireland to ports in Cumberland during the years 1900, 1901, and 1902.

Years	Silloth.	Whitehaven.	Total.
1900	17,311	6,602	23,913
1901	15,138	4,871	20,009
1902	15,468	7,154	22,622

From Mr. Hedley, F.R.C.V.S., Veterinary Branch of the Department of Agriculture and Technical Instruction for Ireland.

having first appeared in the county in 1841. It was thought by 1850 that both these scourges were on the decrease. This was unfortunately not so, for later outbreaks, as well as of cattle plague, in 1865-6, are still well remembered. Foot and mouth disease was stamped out in 1883 and pleuro-pneumonia in 1891. Sir John Dunne, the late chief constable of the county, bore a chief part in originating measures for the successful extirpation of these contagious diseases, for which he was publicly thanked in an address, on his retirement, at the County Quarter Sessions in 1903. The system of energetic supervision, the slaughter of diseased animals, and the isolation and disinfection of infected areas, originated by Sir John Dunne, was successful in arresting the progress of the plague, and was adopted by the Privy Council and embodied in a Bill brought into Parliament by the late Duke of Richmond, so that the plague was stamped out throughout the country. In a letter Sir John Dunne informs me he was on duty night and day for many months with all the police of the two counties and a large number of special constables to cut off diseased animals from healthy districts, and he formed a northern frontier line of patrols from Alston to Allonby, and a southern line from the Dent Mountains to Arnside. Mounted constables were on duty night and day along these lines to prevent tramps or conveyances or living things passing from the diseased to the healthy districts without being thoroughly disinfected.

The cattle stock of the county numbered 154,177 in 1903, and show an increase of over 20 per cent. of the number in 1870. In 1850 the feeding stuffs in general use were the produce of the farm, linseed and linseed oil cake, and rape cake being occasionally used. The former was £7 or £8 per ton that year, though a year

or two before £12 per ton, and the price of rape cake £4 10*s.* per ton.* Wheat was so low in price in 1849 and 1850 that it was ground and used as cattle food.† Price of linseed cake in 1904, £7 15*s.* per ton. Cotton cake was not known in 1850, but was tried in Scotland in 1854 with success.‡ In America, previous to 1860, cotton seed was either used as a manure for the cotton crop or allowed to rot.§ Present price of decorticated £7 15*s.*, of undecorticated £5 per ton.

Horses.—The farm-horses of Cumberland are mainly of the Clydesdale type, and have been so throughout the period under review, though about 1850 the Earl of Lonsdale made great efforts to introduce the Suffolk punch into the county.¶ A cross between a Clydesdale mare and the blood horse was most approved and in general use at the earlier period as a horse of all work; able to journey to market and yet strong enough for ploughing an acre a day, and also light and active at his work. Horses are bred at most farms of 80 acres or more, and periodical sales are held throughout the county. The number of horses in 1903 was 22,389.

Sheep.—Before the Enclosure Acts every farm in West Cumberland was more or less of a sheep farm, and had access to the common for grazing by the "outgangs." But, by 1850, the sheep-farms were mostly confined to the bases of the mountains, while the low-lying farms mostly fed them, as they have done in an increasing degree up to the present time, on roots during autumn and winter. The breed distinctive of the county is the Herdwick. A few flocks of pure bred Border Leicesters

* *Royal Journal* 1850, p. 431.
† Dickinson, p. 35.
‡ *Journal of Agriculture*, 1854, p. 374.
§ Henry, *Feeds and Feeding*, p. 154.
¶ William Dickinson, *West Cumberland*, p. 56.

have been kept, notably that of Mr. J. Twentyman of Hawkrigg, and Mr. Joseph James of Oughterside. Scotch lambs, black-faced and half breeds (Border Leicester and Cheviot), are largely purchased at the autumn lamb sales for wintering on roots. The number of sheep in 1903 was 593,231, and shows an increase of over 18 per cent. of that in 1870. A peculiarity with the hill-sheep farms is the custom which still prevails called "heafing," the letting a number of sheep which belong to the landlord with the farm. The flock is valued at every change of occupier, and bond is required for maintaining the condition and number. The rent paid for such sheep under such letting varied from 6*d.* to 1*s.* per head, including common right, which represents 4 or 4½ per cent. on their value, the sheep being worth roughly speaking £1 a piece. Mr. Watt, F.S.I., agent to Lord Muncaster, says "The system has been largely instrumental in promoting "the hard-working and industrious farm labourer to a "small farmer. There can be no doubt that but for "this system many of the best labourers in Cumber-"land would have left the land altogether." *

Pigs.—Even in 1850 Cumberland ham and bacon had a reputation which it has maintained to the present day, and even at that date the stock had been brought to a great pitch of perfection. It was the practice to fatten on a liberal allowance of oatmeal paste, giving, it is considered, firmness to the pork and a fine flavour to bacon and hams when dried, so that the latter can still command a price of 11*d.* per pound, compared with American hams at 7*d.* to 8*d.* Large and middle whites are the breeds most extensively kept. They are never allowed to run out, and are fed from birth, so that they mature early.

* Wilson Fox, Report, &c., p. 9.

In the sale and distribution of stock the improved means of communication by railway to all the great centres of consumption has caused the opening of extensive auction marts throughout the county, as at Carlisle, Penrith, Cockermouth, Wigton, Whitehaven. Sales are held weekly as well as special sales at different periods, and these are visited by dealers from a great distance. The first auction mart for live stock in Cumberland was started in Cockermouth in the early sixties by the late Mr. Robinson Mitchell, and it was soon followed by one at Carlisle established by Mr. E. Telford.

In 1850, the Royal Agricultural Society held its annual show at Exeter, while in 1855 it met at Carlisle,* when 808 live stock entries were made, 1,314 implements separately catalogued, the number of persons paying for admission being 37,533. The second meeting at Carlisle was in 1880, when the weather was unfortunately very wet. Entries of live stock 1,485, implements 4,196, persons paying for admission 92,011. Carlisle in 1902 had the distinction of receiving the last Country Meeting of the Society, when the entries of live stock were 1,911, of implements 3,916, the number of persons paying for admission being 93,187. A small plot of 15 acres sufficed in 1850 for the Royal Showyard; in 1880 this area had increased fourfold. In 1902 the total acreage was 80. In 1855, the prize money was £2,175, in 1880 £5,881, and in 1902 £6,070. There were no local agricultural shows in 1850, but the effect of the visits of the Royal Society was to cause their formation, so that at the present date shows are held yearly at Carlisle, Penrith, Wigton, Whitehaven, Silloth, Aspatria, Brampton, Ireby, &c.

Co-operation.—There are at present several agricultural and industrial co-operative societies in the

* *Journal of Royal Agricultural Society*. 1902, p. 164.

county, which owe their origin primarily to the ideas promulgated by Mr. William Lawson, brother of Sir Wilfrid Lawson. Mr. Lawson in 1862 promoted a co-operative farm at Blennerhasset. In the plans for its working all the regular male and female labourers had a voice. The scheme attracted considerable attention throughout the country, and though given up at the end of 1871, it sowed the seeds by which co-operation spread in the neighbouring districts. The chief agricultural supply associations are those of Aspatria, Brampton, Eden Valley, and Ravenglass. The first was registered in 1870, and has an annual turnover of £14,000 to £16,000.

Agricultural Education.—In 1850, no scientific instruction in the principles underlying agricultural practice was obtainable in the county, while at the present time there exist the Agricultural College at Aspatria and the Cumberland and Westmoreland Farm School at Newton Rigg, near Penrith. The former has for 30 years been engaged in giving education in agricultural science and practice. It was founded in 1874 by Mr. William Norman, who had been a student at the Royal Agricultural College, Cirencester, and who was farming in the neighbourhood, Mr. J. Twentyman. tenant of Blennerhasset Farm, and Mr. H. Thompson, veterinary surgeon. From its establishment the institution has received support from time to time from various landowners in the county, notably Sir Wilfrid Lawson and Mr. S. P. Foster. It was under the principalship of the late Dr. H. J. Webb (1886—1893) that the College became widely known. The Farm School at Newton Rigg was established in 1896 by the Cumberland and Westmoreland County Councils, and it has been throughout under the capable management of Mr. W. T. Lawrence.

Short courses of instruction are given to female pupils in the summer (8 weeks) and to male pupils in the winter (16 weeks). The Committee report in 1903, "The Farm "School continues to obtain a good number of pupils and "we are satisfied that they are of the best class to profit "by the course of instruction provided."

Legislation.—In common with the rest of the country in 1850, the Cumberland farmer did not enjoy the right to remove fixtures erected by him, such as was the privilege of trade as distinct from agriculture. It was not till 1852 that the Landlord and Tenant Act conferred the privilege of the removal of buildings, engine, or machinery by the tenant, where he had erected them at his own cost with the consent of the landlord. The Agricultural Holdings Act (1883) made the requirement of the landlord's permission to erect unnecessary, while the recent Act of 1900 extends the right of removal to fixtures acquired by the tenant.

Again, in 1850, stock, belonging to a third party on the farm of a tenant might be seized as distress for rent, but now, under the operation of the Agricultural Holdings Act, these are protected as well as agricultural machinery on hire. Again, in 1850, where game was reserved, the tenant could not protect his crops from damage by hares and rabbits, which the present-day tenant can do under the Ground Game Act. "Cumberland is not a game "county, and there is really very little grievance about "over preservation."* In 1850 the tenant paid the tithe-owner; now the tithe, which only comes to 9¾*d.* per acre under crop, is paid by the landowner. Complaints occurred in 1850 of the adulteration of artificial manures, now we have the Fertilisers and Feeding Stuffs Act, designed to protect the purchaser.

* Wilson Fox, Report, p. 41.

Finally, no principle of compensation for improvements was recognised at the earlier date, which the Agricultural Holdings Acts of 1875, 1883, and 1900 now confer.

Mr. Wilson Fox, in collecting evidence in the county in 1895 on the working of the Agricultural Holdings Act, ascertained that tenants "prefer private agreements to "claiming compensation under the Act, because they "know within a small amount what they are likely to "receive, because there is little or no expense attached "to any proceeding which may take place, because "there are no technicalities or procedure to observe, "because the landlord seldom claims for dilapidations "unless they are of a serious nature, because ill-feeling "is not created between landlords and tenants."* On the point of penal clauses, Mr. G. Richardson, F.S.I., estate agent, Carlisle, says, "Most certainly all valuers "only give compensation for actual damage sustained. "There are very few agreements with penal clauses in "them and no valuers ever act upon them." Section 6 of the Act of 1900 was thus anticipated in practice in Cumberland.

The consideration of the state of agriculture at the present date would be incomplete without some reference to the recent agricultural depression, which made its effect felt in the county about 1881, and gradually deepened, reaching its acute stage in 1892 and 1893, but by October, 1895, signs of a more favourable time were observable. I quote from Mr. Wilson Fox's Report for the county. "Only cold heavy land has gone back to any "extent since the depression." "Mr. R. A. Allison, M.P., "produced figures at the meeting of the Cumberland "Farmers' Association showing that between 1892 and

* Wilson Fox, Report, p. 17.

" 1894 the price of oats had fallen 30 per cent., of wheat " 60 per cent., of wool 50 per cent., and of beef and mutton " 20 per cent." "The effect of the depression upon owners " of estates is that rentals have been reduced, generally " speaking, between 15 and 25 per cent., the selling " value of their land has since the seventies decreased " from between 30 and 35 years' purchase to about 25 " years' purchase." * " Hardly any reductions in rent " were made before 1882, and it was not till 1888 that " general reductions took place." "Taking the county " generally, the position of the farmers in Cumberland " is, I believe, more satisfactory than in any other upon " which I have reported. It is, however, by no means " as satisfactory as could be wished, but there is less " anxiety in the present and more hope for the future " than in the other districts in which I have made " investigations." "The Cumberland farmer has for- " tunately felt the decline in the price of cereals com- " paratively little, for he looks more to cattle and sheep " for his profits." " Moreover, owing to the rainfall, the " proximity of the sea, and the influence of the Gulf " Stream, he is favoured by a climate which promotes " the growth of grass and roots." " Unremitting work, " curtailment of expenditure, and strict economy are the " order of the day among the farming community. " The Cumberland farmer is a working farmer who " takes his full share of the daily toil and sets his " labourers an example of zeal and industry. Hard- " headed, hard-working, honest, and thrifty, this splen- " did race of men, of whom the country may be proud, " are well fitted to face and grapple with difficult " times."†

* Wilson Fox, Report, pp. 25-28.

† *Ibid*, pp. 28-41.

With these words of appreciation of the Cumberland agriculturist by an independent investigator, I bring my Paper to a close. It has extended itself in length as I entered upon its preparation, but my efforts will be abundantly rewarded if it has been of interest and not wearisome to my fellow Members of The Surveyors' Institution.

APPENDIX.

From the Official Agricultural Returns, 1903.

Cumberland contains 973,086 acres, of which 961,544 are land, and 11,542 inland water. The woods and plantations constitute 35,054 acres, and mountain and heath land used for grazing 266,920 acres. The total extent of land under crops and grass 606,919 acres, of which 548,904 are occupied by tenants, and 58,015 occupied by owners. Under corn crops, the amount is 75,143 acres, in the proportions of acreage: wheat, 1,859; barley, 1,594; oats, 71,317; rye, 326; beans, 12; peas, 35. Of green crops the total acreage is 41,480, in the proportion of potatoes, 8,219; turnips and swedes, 29,152; mangold, 2,958; cabbage, &c., 840; vetches, 95; other crops, 216. Clover and grasses under rotation: acreage for hay, 42,926; not for hay, 66,864.—Total, 109,790 acres. Permanent pasture: for hay, 74,641; not for hay, 277,600. —Total, 352,241 acres. Acreage of flax, 1; hops, 0; small fruit, 298; bare fallow, 516.

Horses used for agricultural purposes (including mares kept for breeding), 15,216. Unbroken horses, one year and above, 4,886; under one year, 2,287.—Total, 22,389.

Cows and heifers in milk or in calf, 49,645. Other cattle, two years and above, 34,626; one year and under two, 32,174; under one year, 37,732.—Total of cattle, 154,177.

Ewes kept for breeding, 208,042. Other sheep—one year and above, 167,679; under one year, 217,510.—Total of sheep, 593,231.

Sows kept for breeding, 3,274; other pigs, 17,324. Total of pigs, 20,598. In 1896 the number of cattle was 140,517, being 145 per 1,000 acres. In 1896 the number of

sheep was 566,487, being 567 per 1,000 acres. In 1870-2, average number of cattle 121,695, in 1900-2, 149,551. Increase, 22·89 per cent. In 1870-2, average number of sheep 497,903, in 1900-2, 588,489. Increase, 18·19 per cent. Total increase in cattle over same period for Great Britain, 22·97 per cent. Total decrease in sheep over same period for Great Britain, 5·64 per cent. The *yield per acre* of crops in 1903 in bushels: Wheat, 30·6. Barley, 31·36. Oats, 44·24 (49·30 in 1902). Potatoes, 5·52 tons (7·10 tons in 1902). Turnips and swedes 12·16 tons (in 1902 20·25). Mangolds, 15·97 tons. Hay under rotation, 29·10 cwt. 38·89 cwt. in 1902). Hay from permanent grass, 32·44 cwts. (35·38 cwt. in 1902).

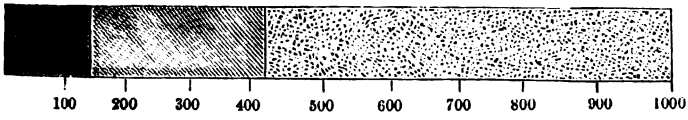

Diagram showing proportion of wheat, corn crops, arable land, and permanent pasture, per 1,000 acres of land under crops and grass in Cumberland, based on average acreage of the three years 1897, 1898, 1899.

(*From Agricultural Returns*, 1899).

Mr. F. PUNCHARD (Fellow), in moving a vote of thanks to Mr. Smith Hill for his Paper, said his acquaintance with the farming of Cumberland did not go back quite as far as 1850, though it covered nearly 40 years. He fully endorsed what Mr. Smith Hill had said with regard to the changes which had taken place in late years in respect to the position of the Cumberland farmer. No doubt the principal changes had been in the matter

of rent and in the status or social position of the tenant farmer. Rents had gone down in Cumberland, as they had throughout the country, and the farmer had had to give up many luxuries, and to devote himself to the practical management of his farm, and to seeing that his family took their due share of the work. The removal of the "statesmen" was not to be regretted from the agricultural point of view. The "statesman" had been obliged to hand over his property to the wealthy purchaser, who had made considerable improvements in the way of building, drainage, and other work, which the former "statesman" could not find money for. As a result the farmer could now make his rent more easily than in past times. In many cases the succeeding generations of the "statesmen" were now occupying the holdings which their fore-elders owned, and are doing all the better for the outlay of capital made by the more wealthy purchaser in buildings and other improvements. The College at Aspatria had done, he thought, immense good throughout England, and its value was fully appreciated in Cumberland and Westmoreland, many farmers in the neighbourhood taking advantage of the instruction given, and not considering an agriculturist's education complete until he had taken a course similar to that provided at Aspatria.

Mr. Tom Birkett (Fellow), who seconded the vote of thanks, said there were many points with regard to which he should like to have had an exchange of opinion, but time did not permit discussion at any length. If any of the Members present could accompany the President into Cumberland after the Conference they

would be amply rewarded by having an opportunity of visiting the Agricultural College at Aspatria and seeing what advanced agricultural education was doing there. He would also be glad to take them to see a typical Cumberland homestead and to introduce them to a typical farmer of the county.

The vote of thanks to Mr. Smith Hill was then put and carried unanimously.

Mr. H. T. STEWARD (Fellow) said he regretted that it had not been possible to have a Paper on Ancient Lights, as the question was of very great interest to many present, and one to which they had given a great deal of attention; and he was sure, from what he had seen in walking about Newcastle that it must be a subject of very real importance to the people of that city.

It seemed to him that the judgment of the House of Lords, a few weeks ago, was calculated to put at rest, to a large extent at any rate, the question of what the law was, and he could not help thinking it would be of great benefit in towns like Newcastle as well as in London and elsewhere. At the same time, he might say that The Institution, in conjunction with the Royal Institute of British Architects, had some time since framed a Bill which they had presented to Parliament this year with a hope of getting it through. What its exact prospects were, in view of the congested state of Parliamentary business, he could not say, but he was afraid it was hardly likely to make much progress this year, for there was very little chance of a private Bill going through if it was opposed.

He might say that what was sought to make the law of the land was, in substance, the judgment which had been given by the House of Lords. The architects and surveyors of England had interpreted the Act in that way, and it was satisfactory to find that they had been proceeding, at any rate, upon the right lines.

The Meeting then adjourned.

THE ANNUAL GENERAL MEETING

Monday, May 30th, 1904.

ALBERT BUCK (President) in the Chair.

The Report of the Scrutineers, appointed at the Ordinary General Meeting of Monday, May 16th, 1904, under the provisions of Article XLII. of the By-Laws, was read to the Meeting.

The Report declared that the following had been elected a

COUNCIL FOR THE ENSUING YEAR.

President.

HERBERT THOMAS STEWARD.

Vice-Presidents.

CHARLES BIDWELL
GEORGE LANGRIDGE
THOS. TAYLOR WAINWRIGHT
JOHN WORNHAM PENFOLD

Members of Council.

HOWARD MARTIN
ALEXANDER ROSE STENNING
THE HON. EDWARD GERALD STRUTT
LESLIE ROBERT VIGERS
THOMAS BLASHILL
WILLIAM EDGAR HORNE
JOHN FARRER
WILLIAM EDWARD WOOLLEY
THOMAS BINNIE
JOHN GOULD DREW
HOWARD CHATFEILD CLARKE
EDWARD BLAKEWAY PANSON
JOHN GERMAN
GEORGE FRANCIS STEWART
FREDERICK GEORGE CHINNOCK
ROBERT NEVILLE HOLBECHE

Professional Associates of Council.

JOSEPH HENRY SABIN
CHARLES PELL HALL

Associates of Council.

THE RIGHT HONOURABLE LORD ALVERSTONE, G.C.M.G.
(Lord Chief Justice of England)
SIR JOHN WOLFE BARRY, K.C.B.

The Report of the Council on the affairs of The Institution, and the Statement of Receipts and Expenditure for the year 1903 were read.

IT WAS RESOLVED—"That the Report of the Council and the Balance Sheet be received and approved, and be printed and circulated with the '*Transactions*.'"

IT WAS RESOLVED—"That the thanks of The Institution be given to Messrs. H. C. NEWMARCH and STANLEY HICKS for the efficient performance of their duties as Auditors, and that they be requested to continue their services for the ensuing year.

IT WAS RESOLVED—"That the thanks of The Institution are due and be given to the President, Vice-Presidents, and the other Members and Associates of the Council, for the able manner in which they have administered the affairs of The Institution."

IT WAS RESOLVED—"That the thanks of The Institution be given to Mr. PERCIVALL CURREY (the Honorary Secretary), to Mr. JULIAN C. ROGERS (the Secretary), and the other officers of The Institution, for the able manner in which they have executed their several duties."

THE PRESIDENT presented the following Prizes won by Candidates in the Professional and Preliminary Examinations, 1904:—

THE INSTITUTION PRIZE OF THE VALUE OF £15 15*s*.

to WILLIAM CECIL CLEMENS, placed first of the Student Candidates in the Associateship Examination, 1904.

THE SPECIAL PRIZE OF THE VALUE OF £10 10*s*.

to CHARLES FREDERICK NORMAN, second in order of merit of the Student Candidates in the Associateship Examination.

THE PENFOLD GOLD MEDAL

to CHARLES EDWIN WIDDICOMBE for the highest marks (over 75°/₀ of the maximum) in the Fellowship Examination 1904.

THE DRIVER PRIZE OF THE VALUE OF £15

to GUSTAVUS TAYLOR LOBAN for the highest marks gained by a Non-Student Candidate in the Associateship Examination 1904.

AND

THE PENFOLD SILVER MEDAL

for the highest percentage of marks (over 75°/₀ of the respective maxima) in the Students' and Non-Students divisions of the Associateship Examination 1904.

THE "CRAWTER" PRIZE OF THE VALUE OF £10

to FRANK GEORGE NEWNHAM for the best work in the subject "Principles and Practice of Valuation" in the Fellowship Examination 1904.

THE "BEADEL" PRIZE OF THE VALUE OF £5 5*s*

to HAROLD ROBERT SMITH, for the best work in the subject "Agriculture" in the Associateship Examination, 1904.

THE "GALSWORTHY" PRIZE OF THE VALUE OF £15.

awarded, for the first time, to the Fellowship Candidate, who having passed the Associateship Examination as a Student, is found to have obtained the highest aggregate of marks in the Fellowship and Associateship Examinations combined,

to GEORGE POTTER KNOWLES, the amount of the prize being devoted partly to the purchase of books and instruments and partly to the payment of the winner's annual subscriptions.

THE "PRELIMINARY PRIZE" OF THE VALUE OF £2 2*s*.

to SIDNEY HAROLD STOHWASSER, for the highest number of marks in the Preliminary Examination 1904.

It was resolved—

"That the thanks of the Meeting be given to Messrs. W. T. CRESWELL, J. H. MELLENFIELD, G. STANFORD, and S. PARKHOUSE for their services as scrutineers."

A vote of thanks to Mr. Buck for his conduct in the chair was carried unanimously, and the proceedings then terminated.

THE THIRTY-SIXTH
ANNUAL REPORT OF THE COUNCIL.

Annual General Meeting, May 30th, 1904.

As a record of work, the subjoined Report will, it is hoped, compare favourably with those that have gone before it.

The following Table shows the growth of the Membership during the year.

TABLE A.

	Honorary Members.	Fellows.	Professional Associates.	Associates.	Students.	Colonial Fellows.	Total.
May 1902	17	1891	906	86	392	20	3312
May 1903	17	1897	1025	86	396	22	3443
May 1904	18	1886	1140	80	409	27	3560
Increase of 1904 over 1903	+1	—11	+115	—6	+13	+5	+117

The increase in the number of Members year by

year, from 1869 to 1904, is indicated in the subjoined table.

TABLE B.

	Members (or "Fellows" after 1881).	Associates.		Students.	Total.
		Professional.	Ordinary.		
May 1869 ...	162	38		2	202
" 1870 ...	180	59		2	241
" 1871 ...	190	65		2	259
" 1872 ...	205	67		4	276
" 1873 ...	225	74		5	304
" 1874 ...	247	89		6	332
" 1875 ...	275	101		11	387
" 1876 ...	300	119		8	427
" 1877 ...	310	133		11	454
" 1878 ...	312	134		8	454
" 1879 ...	330	146		10	486
" 1880 ...	342	155		10	507
" *1881 ...	357	164		14	535
" 1882 ...	480	235		7	722
" 1883 ...	557	218	74	38	887
" 1884 ...	666	307	80	58	1121
" 1885 ...	703	317	86	86	1192
" 1886 ...	716	316	84	80	1196
" 1887 ...	741	339	89	108	1277
" 1888 ...	798	333	90	102	1323
" 1889 ...	910	334	89	110	1443
" 1890 ...	1095	310	89	123	1617
" 1891 ...	1374	336	96	140	1946
" 1892 ...	1646	342	97	172	2268
" 1893 ...	1629	353	93	181	2269
" 1894 ...	1626	381	84	204	2309
" 1895 ..	1629	430	83	210	2352
" 1896 ..	1802	465	86	220	2573
" 1897 ...	1808	540	84	252	2684
" 1898 ...	1835	615	85	272	2807
" 1899 ...	1887	686	84	308	2965
" 1900 ...	1883	757	88	336	3064
" 1901 ...	1883	834	89	364	3170
" 1902 ...	1891	906	86	392	3275
" 1903 ...	1897	1025	86	396	3404
" 1904 ..	1886	1140	80	409	3515
			Honorary Members		18
			Colonial Fellows		27
			1904 Grand Total		3560

* Since August, 1881, "Members" have been designated "Fellows" and in 1883 "Associates" were divided into "Ordinary" and "Professional" Associates.

FINANCE.

The Receipts for the year show, both on Capital and Income Account, a satisfactory increase—the former of £83, and the latter of nearly £500. This increase is distributed among the items as follows :—

Fellows' subscriptions £87, Students' subscriptions £15, Professional Associates' subscriptions, over £300. Under Capital Account the main increase is in Professional Associates' entrance fees, Fellows' entrance fees increasing by about £13 only.

The item Hire of Rooms for Arbitrations shows a satisfactory total of £648, being £30 more than last year.

The income from Interest and Dividends for the year amounted to £434, as compared with £373 last year, but the shrinkage in the value of the invested Capital, owing to the general depression in securites, has necessitated the writing off, for the purposes of valuation, of about £650 on Capital Account.

Expenditure shows an increase of some £380, including a payment of nearly £500 for the cleaning and decorating of the principal rooms, to which reference was made in the last Report.

Table C.

Receipts.	£	s.	d.	Payments.	£	s.	d.
Revenue Balance in hand, January 1st, 1903 . .	861	15	6	Total Payments out of Revenue (Current Expenses)	8,249	17	5
On deposit at 7 days' call .	1,800	0	0	Purchase of £2,724 0*s.* 7*d.* 2½ per cent. Consols . .	2,454	15	3
Total Receipts on Revenue .	9,659	14	1	Purchase of £975 16*s.* 9*d.* New 2½ per cent. Stock .	866	14	5
Examinations Account .	646	5	3	Balance paid out of Suspense (Examinations) Account	246	15	0
Total Receipts on Capital Account	702	9	0	Reserve Fund . . .	1,000	0	0
				Balance in hand, December 31st, 1903 . . .	852	1	9
	£13,670	3	10		£13,670	3	10

Examinations.

As will be seen from the annexed table D, there has been again a large increase in the numbers of Candidates for the Professional Examinations, the entries and passes as regards the Preliminary Examination being practically the same as last year.

TABLE D.

Years.	Preliminary Examinations.			Professional Examinations.		
	Candidates.	Passed.	Percentage.	Candidates.	Passed.	Percentage.
1881	13	6	46·15	2	1	50·00
1882	30	17	56·66	—	—	—
1883	44	22	50·00	25	22	88·00
1884	51	30	58·82	36	23	63·89
1885	46	37	80·43	43	31	72·09
1886	46	34	78·26	56	38	67·85
1887	53	39	73·58	58	45	77·59
1888	48	39	81·25	73	52	71·23
1889	51	41	80·39	71	51	71·83
1890	53	44	83·01	96	70	72·91
1891	76	60	78·94	92	68	73·91
1892	83	64	77·10	125	93	74·40
1893	77	57	74·00	149	100	67·11
1894	97	66	68·00	182	129	70·87
1895	121	80	66·11	196	141	71·93
1896	117	78	68·37	212	143	67·45
1897	133	91	68·42	236	151	63·97
1898	127	95	74·80	265	169	63·77
1899	145	112	77·25	290	184	63·44
1900	131	102	77·86	325	193	59·38
1901	142	111	78·45	362	246	67·95
1902	165	133	80·06	369	241	65·30
1903	151	108	71·52	424	294	69·34
1904	152	108	71·05	480	370	77·08
TOTALS	2,152	1,574	73·14	4,167	2,855	68·51

Of the above 480 Candidates who presented themselves for the Professional Examinations, 39 came up for re-examination in the "typical" subject, only one being in the "Land Agency" Sub-division, 17 in the "Valuation," and 21 in the "Building and Quantity "Surveyors" Sub-division. Of these Candidates, 30 completed their qualifying examinations by obtaining pass marks in their respective subjects.

Among the 441 new Candidates who presented themselves this year, 33 failed to pass in their "typical" sub-

ject, although obtaining a sufficient aggregate of marks in the Examination as a whole, and were "referred back" for re-examination in that subject. Six of these were in the Land Agency, 10 in the Valuation, and 17 in the Building Sub-division.

The Scottish Examinations.

At the Examinations held in Glasgow simultaneously with the English Examinations, under the superintendence of Mr. William Fraser and a Committee of Scottish Examiners, 5 Candidates presented themselves in the Land Agency Sub-division and one in the Valuation Sub-division. Of these, 5 passed.

The Irish Examinations.

For the Professional Examinations in Dublin, three "Land Agency" Candidates for the Associateship presented themselves, and one "Building" Candidate for the Fellowship, two Candidates in the Associateship division being successful in passing.

The following table gives a summary of the marks obtained in each Division and Sub-division, the number of successful Candidates, the number of those partially successful, the percentage of passes to entries and of marks obtained to maximum marks. It does not include the Scottish and Irish Candidates or those re-examined in the typical subjects.

TABLE E. EXAMINATIONS, 1903.

	Sub-Division I. Land Agency.			Sub-Division II. Valuation.			Sub-Division III. Building.			Total Maximum Marks.	Marks obtained.	Percentage of Marks obtained.	Percentage of Candidates who Passed.
	Examined	Passed.	Referred Back.	Examined.	Passed.	Referred Back.	Examined.	Passed.	Referred Back.				
Associateship Examination. Students	19	13	3	47	43	1	22	20	1	88,000	55,667	63·02	86·36
Associateship Examination, Non-Students	58	39	2	102	71	8	71	51	15	231,000	145,344	62·90	69·61
Fellowship Examination	27	24		47	43	1	30	23	1	104,000	67,727	65·09	86·53
Direct Fellowship Examination	2	1	1	3	3		3	2		12,000	9,491	79·09	75·00
Totals ...	106	77	6	199	160	10	126	96	17	435,000	278,229	63·95	77·26

THE PRIZES.

The Prizes were awarded as follows:—

The "Institution" Prize, value 15 guineas, to William Cecil Clemens, a Student Candidate in Sub-division III. (Building) with 795 marks out of 1,000.

The "Special" Prize, value 10 guineas, to Charles Frederick Norman, a Student Candidate in Sub-division II. (Valuation), with 785 marks out of 1,000.

The "Penfold Gold Medal" to Charles Edwin Widdicombe, a Fellowship Candidate in Sub-division II. (Valuation), with 821 marks out of 1 000.

The "Penfold Silver Medal," for the highest proportion of marks in the two sections of the Associateship Examination, and the "Driver" Prize, value £15, to Gustavus Taylor Loban, a Non-Student Candidate in Sub-division II. (Valuation), with 841 marks out of 1,000.

The "Beadel" Prize to Harold Robert Smith, a Non-Student Candidate in Sub-division I. (Land Agency), with 70 per cent. of the maximum marks in the subject "Agriculture."

The "Crawter" Prize to Frank George Newnham, Fellowship Candidate in Sub-division II. (Valuation), for the best work in the subject "Principles and Practice of Valuation."

The Galsworthy Prize.

In last year's Report the Council announced a most generous gift by Mr. F. T. Galsworthy of £500 for the endowment of a prize in connection with the Fellowship Examination, in a form not then determined.

It has now been decided, with Mr. Galworthy's consent, to devote each year's interest to a prize in respect of that year, to be awarded to the Fellowship Candidate who, having passed the Associateship Examination while a Student, is found to have obtained the highest number of marks in his Associateship and Fellowship Examinations combined.

The amount of the Prize is to be devoted (until exhausted) towards the payment of the winner's annual subscriptions or, under special circumstances and at his request, partly towards that object, and partly to the purchase of books or scientific instruments.

This prize was this year awarded to George Potter Knowles, who passed the Associateship Examination as a Student Candidate in 1899, and whose aggregate of marks at that Examination and at the Fellowship Examination 1904, amounted to 1,586, or 79 per cent. of the possible maximum marks in the two Examinations.

The "Preliminary" Prize was awarded to Sidney Harold Stohwasser, who passed at the head of the list in the Preliminary Examination in January.

THE EXAMINERS.

As has been already stated, the number of Candidates was this year much larger than on any previous occasion, and the work of the Examiners has been correspondingly increased. The revision of the Syllabus and Rules of Examination has introduced new subjects, and the further division of Sub-division III. into the two branches of Building Surveyors and Quantity Surveyors, each branch having its own special "typical subject," also added considerably to the number of papers to be set, and to the amount of work to be adjudicated upon.

The resulting addition to the labours of the Honorary Examiners has been very great, and they have again earned the hearty thanks of all who have the interests of professional education at heart.

Among the gentlemen, outside the ranks of the Council, to whom The Institution is especially indebted in this connection are His Honour Judge F. A. PHILBRICK, K.C., Mr. E. J. CASTLE, K.C., Mr. J. W. WILLIS BUND, Mr. H. A. RIGG, and Mr. R. F. COLAM, who undertook the Legal Subjects, and Mr. W. EVE, Mr. E. J. HARPER, Mr. F. LEE, Mr. F. J. C. MAY, Mr. C. JOHN MANN, Mr.

J. DOUGLASS MATHEWS, Mr. J. W. PENFOLD, Mr. J. H. OAKLEY, Mr. H. W. D. THEOBALD, Mr. J. D. WALLIS, and Mr. W. WOODWARD.

The Council also desire to express their obligations to the Members of the Local Committees in Glasgow, Dublin, and Manchester, who conducted the Preliminary and Professional Examinations with such careful attention to detail and generous expenditure of time as to ensure their complete success.

PROFESSIONAL EDUCATION.

An application has been received by the Council from the Senatus of the University of Edinburgh to be included among the places of professional education approved in connection with preparation for the Professional Examinations of The Institution. The Council have agreed to add the University to the list, subject to certain additions to the present curriculum to cover the requirements of the Institution Examinations. Similar applications have been received from other teaching bodies in England and Scotland, the effect of which will be to link the Examination system with all the principal training colleges of the United Kingdom, thus greatly enlarging the opportunities for study available for young surveyors of all classes.

SPECIAL CERTIFICATE EXAMINATIONS.

Examinations (open to Fellows and Professional Associates of The Institution) qualifying for a special certificate of competency in "Sanitary Science" or "Forestry" will again be held on the 7th, 8th, and 9th of June next. For the Examination in "Sanitary

"Science" there are 10 entries, and for "Forestry" 15 entries.

The Council have to record with deep regret the death of their colleague Mr. George Spencer Mathews of Birmingham, whose brother also served for some years on the Council, and whose father was one of the first Vice-Presidents and a Founder-Member of The Institution.

Mr. Mathews, like his brother, was a man of high intellectual gifts, and rendered valuable service to The Institution as Chairman of the Warwick and Worcester Provincial Committee, as a Member of the Council and as a contributor to the *Transactions*.

The Council nominated another Birmingham Member to fill the vacancy caused by Mr. Mathews' death, recognising the claims of the district to representation on the Council of The Institution.

By the death of Mr. Gilbert Murray The Institution has lost a Member devoted to its interests, who for many years rendered it valuable service as an Examiner in one of the most important subjects, and whose sagacious advice on difficult points of professional practice was always willingly rendered to fellow Members.

The Retirement of Mr. J. W. Penfold.

Towards the end of last year the Council received with the greatest regret an intimation from Mr. Penfold of his desire to relinquish the office which he has held with such honour to himself and such advantage to the Institution since its establishment 36 years ago.

A little later on Mr. Penfold will be asked to accept a presentation portrait, painted by Mr. G. P. Jacomb Hood, and subscribed for by a large number of Members,

when an opportunity will occur of expressing in fuller and more adequate terms the sentiments of cordial regard entertained for Mr. Penfold by the whole body of the Members.

The Council have been fortunate in securing, in the person of Mr. Percivall Currey, who has been for many years a Fellow of The Institution, and comes of a distinguished family of Surveyors, an excellent successor to the office vacated by Mr. Penfold at the beginning of the present year.

Colonial Fellows.

There is evidence of a marked tendency towards an increase in the number of Colonial Members, which may be taken as a gratifying proof that the reputation of The Institution is spreading throughout the Empire, especially among persons in official circles, and it may become a question later on whether The Institution should introduce Examinations in the Colonies for the admission of the various classes of Surveyors not affected by the licensing ordinances of the different Colonial Governments.

Country Lectures.

The Council have given consideration during the session to the question whether anything further can be done in the interests of Professional Education and generally for the benefit of Members, and, with this object in view, have been in communication with the various Country Committees as to the advisability and practicability of holding, at the expense of The Institution, Courses of Lectures on suitable subjects at the

principal universities and technical institutes in the various provincial centres.

Owing mainly to geographical difficulties, many of the Committees do not see their way to give practical effect to the proposals, but in some of the larger centres, where the Membership is less scattered, it is hoped that some arrangements of the kind may be made during the coming winter.

The various Provincial Committees, with the names of the Chairmen for the year, and the number of Fellows at present forming each Committee, will be found set forth in the subjoined table.

TABLE F. PROVINCIAL COMMITTEES.

	Committee.	Chairman.	Number of Members.
A	Northumberland and Durham ...	J. M. Clark ...	25
B	Cumberland and Westmoreland ...	Tom Birkett ...	18
C	Lancashire and Cheshire	C. S. Pain ...	93
D	Yorkshire	R. T. G. Abbott	83
E	Salop and Hereford	H. J. Wyley ...	29
F	Derby and Stafford	J. Shaw, Jun. ...	39
G	Nottingham and Lincoln	C. W. Wright	42
H	Monmouth and South Wales... ...	R. Forrest ...	39
I	Warwick and Worcester	T. Grimley ...	53
J	Leicester, Northampton, and Rutland	W. G. S. Rolleston	44
K	Cambridge, Huntingdon, Norfolk, and Suffolk	W. H. Salter ...	45
L	Berks, Bucks, and Oxon	W. A. Simmons	43
M	Beds, Essex, Herts, and Middlesex ...	J. Weall	53
N	Devon and Cornwall	J. Kittow ...	42
O	Somerset, Glo'ster, and North Wilts	E. M. Hippisley	51
P	Hants, Dorset, and South Wilts ...	N. W. P. Squarey	92
Q	Kent	G. Langridge ...	79
R	Sussex	W. F. Ingram	40
S	North Wales and Radnor	J. E. Poundley	17
T	Irish Committee	W. Rochfort ...	177
U	Scottish Committee	T. Binnie ...	75

Council Attendances.

The subjoined table shows the attendances of the Members of the Council at Council, Committee, and General Meetings from April 20th, 1903, to April 18th, 1904 (both inclusive).

NAMES.	Council Attendances.	Attendances at Ordinary General Meetings.	Committee Attendances.	Total Attendances.
Members.				
Bidwell, C.	5	3	0	8
†Binnie, T.	1	1	0	2
Blashill, T.	11	6	12	29
Buck, A.	12	7	10	29
Clarke, H. Chatfeild...	12	8	19	39
Drew, J. G.	1	0	0	1
Farrer, J.	3	2	0	5
German, John ...	6	5	0	11
Horne, W. E.... ...	6	4	12	22
Horsfall, R.	0	0	0	0
I'Anson, E. B. ...	7	6	12	25
‖Kincaid, J. S. ...	0	0	0	0
Langridge, G. ...	6	4	6	16
Martin, H.	11	9	30	50
*Mathews, G. S. ...	4	0	0	4
Rickman, T. M. ...	5	2	6	13
Rolleston, Sir J. F. L., M.P.	6	2	3	11
Shaw, J.	0	0	0	0
Squarey, E. P. ...	0	0	0	0
Stenning, A. R. ...	9	8	14	31
Steward, H. T. ...	12	9	12	33
Strutt, Hon. E. G. ...	12	7	5	24
Sturge, W.	0	0	0	0
Vernon, A.	7	1	5	13
Vigers, L. R.... ...	13	8	9	30
Vigers, R	6	2	22	30
Wainwright, T. T. ...	1	1	0	2
Watney, D.	10	7	3	20
Woolley, W. E. ...	9	6	1	16
Professional Associates.				
Hall, C. P.	7	1	4	12
Sabin, J. H.	14	12	19	45

* Deceased.

† Representing the Scottish Committee.

‖ Representing the Irish Branch.

Amendment of the London Building Acts.

At the invitation of the London County Council, the Council of The Institution, assisted by a representative Committee, have devoted considerable time and labour during the Session to the framing of proposals for the amendment of the present London Building Acts. During the progress of the Bill of 1894 through Parliament, The Institution was largely instrumental in greatly modifying (and the Council venture to think improving) its provisions in the form in which the Bill was first introduced, and this being so, the most recent proposals of the Council were necessarily limited to defects in the Act of 1894 which have revealed themselves in practice, to provisions to meet new methods of construction introduced since the passing of the Act, and to the desirability of giving an appeal to the Tribunal created by the Act of 1894 on many points on which a discretionary power at present resides with the Superintending Architect.

It is hoped that some, at any rate, of the suggestions referred to will commend themselves to the London County Council and the Legislature.

The Law of Ancient Lights.

An effort will be made during the current Session of Parliament to reintroduce the Bill, prepared and promoted by The Institution and the Royal Institute of British Architects, for the amendment of the law as to easements of light, but, like all private Bills, its chances of passing are small, unless the Government can be induced to regard it with a friendly eye.

With the same object in view the Council agreed to

contribute to the costs of the appellant in the action of *Colls* v. *Home and Colonial Stores*, in the hope that some recent decisions most adverse to building operations in London, and to the interests of property owners, might be overruled by the House of Lords. This hope has now been realised, and the result will be regarded with general satisfaction.

PROTECTION OF THE TITLES OF CHARTERED SOCIETIES.

The Institution, in common with other bodies incorporated by Royal Charter, has suffered from the unauthorised use by unscrupulous persons of its title and designatory letters. It is too early to make any definite announcement as to the steps being taken to remedy this state of things, but the Council are not without hope that the action which they are taking, in concert with other societies similarly situated, may result in the securing of some measure of protection against this growing evil.

The Council have felt it their duty to oppose the grant of a licence of incorporation under the Companies Acts to a new body entitling itself the Quantity Surveyors' Association, on the ground that there is no necessity for the establishment of any new society of the kind, as this branch of practice is already adequately represented by The Institution, and enjoys in that connection every advantage possessed by other classes of Members.

The Council invited the promoters of the new society to meet them in conference with a view to discovering, if possible, whether there were any respects in which the usefulness of The Institution to the general body of Quantity Surveyors could be increased, hoping

in this way to remove any reasonable grounds for the formation of a separate society, but this invitation meeting with no response, it became necessary for the Council to do their utmost for the protection of the interests of The Institution.

The Conversazione.

The Conversazione, held at the Natural History Museum in June last was very largely attended, both by town and country Members, and gave so much satisfaction that the Council have determined to hold another Conversazione on the 16th June next.

The Publications.

The current volume of the *Transactions* contains several excellent contributions on subjects that appeal to a wider audience than the general run of Papers. Among these may be enumerated the Papers on "Industrial Decentralization" and the cognate subject of "Garden Cities," and the Paper on "London Streets and Street Traffic." Among those which appeal more particularly to the profession may be mentioned the excellent Paper by Mr. E. T. Scammell, on "The Pre-"servation of Timber," the Paper on "British Timber "and its Uses," by Mr. H. J. Elwes; and the Paper on "The Land Purchases for the New Naval Base at "Rosyth," by Mr. T. Binnie.

The resulting discussions on these Papers elicited a large amount of information of a most useful and interesting character.

Since the date of the last Report, three numbers of the *Professional Notes* have been published, comprising

over 300 pages of closely printed matter. It will be observed that the Members are availing themselves more and more of the facilities afforded by Section III. of the *Notes* for obtaining the opinions of their fellow Members on difficult points of professional practice.

The Council Gold Medal.

With a view to maintaining the standard and reputation of the *Transactions*, the Council have decided to offer a Gold Medal to be awarded for the best Paper (if of sufficient merit) read by a Member of The Institution during the Session.

The Library.

No very considerable number of books have been purchased during the year, but the presentations have been numerous and valuable. It is hoped that before the year is out it may be possible to issue the new edition of the Library Catalogue, which is now in course of preparation.

The Loan Library.

The Council are glad to note that a much larger use is being made of the Loan Library as the Members come to realise its advantages. During the year, 496 works have been issued. The number of Members who have made use of the Loan Library has been 196, of whom 93 were town and 103 country Members.

Steps are taken from time to time to multiply the number of copies of books proved to be in considerable request.

The Forestry Collections.

There have been some interesting additions to the Forestry Museum, for which the Council are indebted to some of the members specially interested in the subject. It is hoped that it is now fairly representative of the various features of British woodcraft, and at the request of the Royal Agricultural Society of England, the Council have undertaken to send an exhibit to the Show at Park Royal in June next.

Employment Register.

During the past year the Register has been a means of helping a good many of the younger Members to obtain employment, and there is every reason to believe that, as it becomes better known, it will prove still more useful for the purposes for which it is designed.

ADDENDUM.

In response to a joint invitation from the Northumberland and Durham and Cumberland and Westmoreland Provincial Committees, The Institution this year held the Annual Summer Meeting and Conference at Newcastle-on-Tyne. The arrangements for the reception of

the visiting Members, and for the carrying out of an interesting programme during their stay in Newcastle, depended for the success which attended them on the energy and foresight of the two Northern Provincial Committees, to whom the thanks of The Institution are especially due.

On the evening of May 25th the visiting Members, numbering, with the local Members, some 120, were received at the County Hotel, Newcastle, by Mr. J. McClare Clark, Chairman of the Northumberland and Durham Committee, and Mr. Tom Birkett, Chairman of the Cumberland and Westmoreland Committee, who, in the name of the Surveyors of the North of England, extended a hearty welcome to their brethren from the rest of the United Kingdom. On the morning of Thursday, May 26th, the Deputy Mayor of Newcastle (in the absence of the Mayor) welcomed the Members of The Institution in the name of the Corporation of the City, in the Council Chamber of the Town Hall. His Worship was supported by Mr. W. R. Plummer, M.P., and Mr. George Renwick, M.P., who represent the City in the House of Commons, and who heartily joined the Deputy Mayor in an expression of the pleasure which it gave them to receive the Members of so important a body in their midst, and a hope that their visit to the North might be pleasurable and profitable.

Mr. Albert Buck (President) having replied, expressing the thanks of the Members for the kind and hospitable welcome extended to them, the party proceeded to the Lecture Theatre of the North of England Institute of Mining and Mechanical Engineers (kindly placed at the disposal of The Institution for the purpose), where, the President having taken the chair, the Con-

ference was opened with an interesting and humorous lecture by Mr. R. Welford, M.A., a well-known local antiquary, on "Newcastle in the Olden Time." Mr. Welford exhibited a series of lantern views and reproductions of old plans and prints illustrative of the history of the town from the earliest days, when the Romans first established an important station on the Tyne, with portraits of local celebrities and houses connected with their lives. Throughout the lecture Mr. Welford entertained the Meeting with quaint and characteristic local tales, legends, and traditions, many of them recounted in the native dialect.

Three Papers were read, viz:

1. "The Rehousing of Displaced Populations" by Edgar J. Harper (Professional Associate).
2. "Some Thoughts on the Housing of the Working Classes," by Henry Ingle Potter (A.R.I.B.A.); and
3. "Agriculture in Cumberland (1850-1900)," by J. Smith Hill (Associate).

The first two Papers, dealing with distinct phases of the same important subject, were discussed together.

At the conclusion of the morning's business the Members were hospitably entertained at luncheon at the County Hotel by the Joint Committees, and during the afternoon parties were formed to visit places of local interest. One party, under the kind and able guidance of Mr. J. Renwick, M.P., visited the Cathedral, the Black Gate and Keep of the Castle, the Old Trinity House and other historic buildings, and were shown many places of interest and old houses intimately connected with the lives of Newcastle's many famous sons. A second party were conducted by Mr. T. J. Armstrong, by special electric tramcars, to Walker, to inspect the works at which a

system of preserving wood by the "Haskinizing" process is carried on.

In the evening, nearly 100 Members and guests dined together at the County Hotel, among those who honoured the Council by accepting their official invitation being the Right Hon. Lord Armstrong, the Deputy Mayor and the Sheriff of Newcastle, the Deputy Mayor of Gateshead, the Rev. Principal Gurney, of the Durham College of Science, Sir Jacob Wilson, Alderman Carrick, the Engineer to the Tyne Improvement Commissioners, and others.

The Second Day, Friday, May 27th, was devoted to excursions to places of interest in the neighbourhood. One party (about 80 in number), under the conduct of Mr. Cuthbert E. Carr (Fellow), proceeded by rail to North Shields, where they embarked on board the steamboat "J. C. Stephenson," kindly lent by the Tyne Improvement Commissioners, and visited in turn many of the great works on the Tyne from the sea to Elswick. Among other objects of interest inspected were the extensive construction works of the new Tynemouth North Pier, the recently completed dry dock of Messrs. Stephenson & Co., the great shipbuilding yard of Messrs. Swan and Hunter, the caissons and foundations, with the air locks and aerial railway for the new high level bridge of the North Eastern Railway, and the vast engineering works, ordnance shops, and shipbuilding yards of Sir William Armstrong, Whitworth, and Co. In spite of unpleasant weather, the Members thoroughly enjoyed the trip up the river, crowded with great men of war, torpedo destroyers, ocean liners, and merchant ships and the busy works of construction and commerce with which the river teems.

A second party, under the guidance of Mr. J. M. Clark (Fellow), taking train to Hexham, drove to Chollerford and visited the site of the Roman Station of Cilurnum, a portion of the Great Roman Wall, and the Museum at Chesters, where they were most generously entertained at luncheon by Mrs. Clayton, on whose estate a considerable portion of the Roman Wall is situated. It had been intended to drive along some ten miles of the wall to Haltwhistle, but this was found to be impossible owing to the state of the weather, and the party returned in the afternoon from Hexham to Newcastle.

A third party, of whom the President of the Institution was one, availed themselves of the invitation of the Education Committee of the Northumberland County Council to visit their experimental farm at Cockle Park, near Morpeth. Accompanied by Mr. Tom Birkett (Fellow) and Mr. W. C. Sample (Fellow), the party was conducted over the farm by Professor Gilchrist, who explained the various experiments now being carried out in cropping, manuring, and feeding, one of the most important being the trials for determining the feeding value of Bombay cotton cake. It was explained that the very widely varied nature of the soil on the farm made it specially suitable for experiments with manures. Instruction in forestry is also, it was stated, a subject of careful attention, and for the furthering of this object a Government grant had been allowed to the farm. The horticultural department, the fruit farm, and the meteorological station were also visited, and the party was entertained at luncheon by invitation of the Duke of Portland, K.G., Mr. W. C. Sample representing His Grace.

The Council take this opportunity of recording their

indebtedness to Mr. J. M. Clark, Mr. Tom Birkett, and the Provincial Committees over which they preside, for the generous hospitality and kindly welcome extended to the Members on this occasion, and for the completeness of the arrangements which did so much to ensure the success of the visit. They wish also to express their thanks to Mr. W. C. Sample, Mr. Cuthbert E. Carr, Mr. H. C. Wood, Mr. T. J. Armstrong, and Mr. Renwick, M.P., for their assistance in conducting the various visits and excursions; to His Grace the Duke of Portland, K.G., and to Mrs. Clayton for their hospitality; to the Mayor and Corporation for the reception and welcome to the city; to Alderman Carrick and the Education Committee of the Northumberland County Council for facilities afforded at Cockle Park; and to the Tyne Improvement Commissioners for the steamboat accommodation in connection with the Tyne excursion. They also acknowledge gratefully the permission given to inspect the works of Messrs. Sir Wm. Armstrong and Co., Swan and Hunter, Stephenson and Son, and the North Eastern Railway Co.; and they cordially appreciate the trouble taken by the readers of the different Papers, and especially by Mr. R. Welford, to render the business portion of the Meeting so interesting and useful as it undoubtedly was.

On Saturday, May 28th, the President, with the Honorary Secretary and several Members of The Institution, visited the Agricultural College at Aspatria, where they were received by Sir Wilfrid Lawson, Bart., M.P., President of the College, Mr. J. Smith Hill, Principal, and many well-known representatives of agriculture in Cumberland and the district. An inspection was made of the farm and buildings, and after luncheon the

President of The Institution distributed the prizes to the successful students at the recent College Examinations, and in a brief speech drew attention to the intimate relation which must always exist between the owners and cultivators of land and the Members of The Surveyors' Institution.

Sir Wilfrid Lawson thanked the President for his attendance and the evidence he and the visiting Members had shown of their interest in the work of the College.

BALANCE SHEET

1903. ASSETS.

	£	s.	d.	£	s.	d.
Cash at Bankers and in hands of Secretary :—						
Current Account (including £50 in the hands of the Secretary)	852	1	9			
"Library, Forestry, and Geological" Account ...	400	10	3			
"Prize Endowment" Capital Account	0	14	9			
"Prize Endowment" Income Account	59	15	0			
Reserve Fund (on Deposit at Bankers)	1,000	0	0			
				2,313	1	9
Furniture				1,248	8	6
Library, Forestry, and Geological Account				5,609	10	6
Investments, Value as at this date :						
Accumulations Account.						
£ s. d.						
6,269 5 4 Consols 2½°/₀ at 88	5,516	19	1			
3,109 2 4 New 2½°/₀ at 88	2,736	0	6			
4,500 0 0 New South Wales 3½°/₀ (1918) at 98	4,410	0	0			
2,006 0 0 London and North Western Railway 3°/₀ Debenture Stock at 97 ...	1,945	16	4			
				14,608	15	11
Library, Forestry, and Geological Account.						
£ s. d.						
1,900 0 0 Consols 2½°/₀ at 88				1,672	0	0
Prize Endowment Account.						
£ s. d.						
503 1 11 India 3°/₀ Stock at 96...	482	19	5			
278 0 3 Midland Railway 2½°/₀ Debenture Stock at 82	227	19	6			
254 0 0 North British Railway No. 1 Preference Stock at 125	317	10	0			
413 16 8 New 2½°/₀ Stock at 88	364	3	5			
440 10 8 India 3½°/₀ Stock at 103	453	15	0			
500 0 0 Courage and Co. 3½°/₀ B Debenture Stock at 90	450	0	0			
				2,296	7	4
Amounts due, but unpaid at date, viz.:—						
Subscriptions and Entrance Fees	538	13	0			
Fees for hire of Rooms	65	2	0			
Rent of Offices (Tribunal of Appeal)	30	0	0			
Publications	1	17	1			
				635	12	1
				£28.383	16	1

N.B.—The above Assets do not include the value of the Premises of the Institution, held on Lease for 999 years from 1895.

31ST DECEMBER, 1903.

LIABILITIES.	1903. £	s.	d.
Accumulations Account	15,635	17	7
Library, Forestry, and Geological Account	7,682	0	9
Prize Endowment Capital Account	2,297	2	1
Prize Endowment Income Account	59	15	0
Examinations Suspense Account	1,084	13	0
Due to Sundry Creditors	624	7	8
Reserve Fund	1,000	0	0
	£28,383	16	1

Examined with books, vouchers, &c., and found correct.

TANSLEY WITT, Chartered Accountant.

H. C. NEWMARCH.
STANLEY HICKS.
Auditors.

40, *Chancery Lane, W.C., 29th April,* 1904.

	RECEIPTS.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
				FOR THE YEAR ENDED	
1903. Jan. 1st.	To Cash at Bankers and in hands of Secretary, viz. :—				
	On Deposit Account			1,800 0 0	
	On Current Account including £50 Petty Cash in the hands of the Secretary ...			861 15 6	
					2,661 15 6
Dec. 31st.	RECEIPTS ON INCOME ACCOUNT :—				
	To 1,746 Fellows' Subscriptions at £3 3*s*.	5,499 18 0			
	„ 66 Fellows' Subscription Arrears at £3 3*s*.	207 18 0			
	„ 26 Fellows' Subscriptions paid in advance for 1904 at £3 3*s*.	81 18 0			
	„ 5 Fellows' Subscriptions (on account of Member reinstated) at £3 3*s*. ...	15 15 0			
	„ Differences of Subscriptions on transfers	13 13 0			
	„ Part Payment of 1 Fellows' arrears of Subscription	1 1 0		5,820 3 0	
	„ 1,058 Professional Associates', Associates', and Colonial Fellows' Subscriptions at £2 2*s*.	2,221 16 0			
	„ 55 Professional Associates', Associates', and Colonial Fellows' Subscriptions Arrears at £2 2*s*....	115 10 0			
	„ 7 Professional Associates', Associates', and Colonial Fellows' Subscriptions paid in advance for 1904 at £2 2*s*.	14 14 0			
	„ 1 Professional Associate's Subscription paid twice, not yet refunded £2 2*s*....	2 2 0		2,354 2 0	
	„ 374 Students' Subscriptions at £1 1*s*.	392 14 0			
	„ 9 Students' Subscriptions paid in advance for 1904 at £1 1*s*.	9 9 0			
	„ 1 Student's Subscription reinstated at £1 1*s*.	1 1 0			
		403 4 0			
	„ Less 1 Student's Subscription refunded at £1 1*s*.	1 1 0		402 3 0	
	„ Hire of Rooms			648 18 0	
	„ Interest, Dividends, &c.			434 8 1	
					9,659 14 1
	EXAMINATIONS ACCOUNT :—				
	To Candidates' Examination Fees ...	1,516 4 0			
	„ Sale of Syllabus ...	55 6 9		1,571 10 9	
	Less Examiners' and Moderators' Fees, Hire of Hall, and Sundry Disbursements			925 5 6	646 5 3
	RECEIPTS ON CAPITAL ACCOUNT :—				
	To 8 Fellows' Entrance Fees at £5 5*s*. ...	42 0 0			
	„ 28 Fellows' Difference of Entrance Fees at £2 2*s*.	58 16 0		100 16 0	
	„ 191 Professional Associates', Associates, and Colonial Fellows' Entrance Fees at £3 3*s*.			601 13 0	702 9 0
					£13,670 3 10

31st December, 1903. PAYMENTS.

1903. Dec. 31st	£	s.	d.	£	s.	d.	£	s.	d.
Payments on Income Account:—									
By *Transactions:* Publication and Reporting	463	13	2						
Less sale of *Transactions* ...	28	8	4						
				435	4	10			
„ *Professional Notes:* Publication ...	329	11	3						
Less sale of *Professional Notes*	18	17	6						
				310	13	9			
„ Salaries	2,392	13	4						
„ Wages	281	15	0						
				2,674	8	4			
„ Housekeeper's Account, and Sundry Disbursements				306	4	5			
„ Postage and Receipt Stamps, General...	283	14	8						
„ „ *Transactions* ...	210	12	11						
„ „ *Professional Notes*	80	17	11						
				575	5	6			
„ Corporation Duty, Rates, and Taxes ...				871	16	9			
„ Fuel, Light, and Water				221	10	4			
„ Ground Rent, less Tax	937	10	0						
Less Amount received from the Tribunal of Appeal ...	120	0	0						
				817	10	0			
„ Repairs				13	4	2			
„ Stationery, Books of Account, &c. ...				72	16	2			
„ Country Meeting at Dublin				107	15	1			
„ Printing, Lithography, and Binding ...				443	17	4			
„ Parliamentary Papers and Periodicals				21	7	2			
„ Lightning Research Committee (3rd Donation)				25	0	0			
„ Conversazione				253	18	1			
„ Provincial Committees and Junior Meetings				527	3	1			
„ Law Charges				72	12	6			
„ Decorating and Cleaning Premises ...				499	9	11			
							8,249	17	5
Examinations "Suspense" Account:—									
By Entrance Fees transferred	264	12	0						
„ Subscriptions transferred	175	7	0						
„ Examination Fees transferred ...	276	3	0						
				716	2	0			
„ Less Examination Fees received ...				469	7	0			
							246	15	0
„ Reserve Fund (on Deposit)							1,000	0	0
„ Investments, Purchase of £2,724 0*s.* 7*d.*, $2\frac{1}{2}$% Consols				2,454	15	3			
„ Investments, Purchase of £975 16*s.* 9*d.*, 2% Annuities				866	14	5			
							3,321	9	8
„ Cash at Bankers and in hands of Secretary, including £50 Petty Cash							852	1	9
							£13,670	3	10

LIBRARY, FORESTRY, AND

1903.			£ s. d.
Dec. 31st.	To Purchase of Books, Maps, &c.:—		
	General Library	77 2 8	
	Loan Library	139 12 6	
			216 15 2
	„ Insurance		4 10 0
	„ Decrease in the value of Investments at date		95 0 0
	„ Balance carried forward*		7,682 0 9
	* Cash in hand	£400 10 3	
	£1,900 Consols 2½% at 88 ...	1,672 0 0	
	Value of Books, Forestry, and Geological Collection ...	5,609 10 6	
			£7,998 5 11

ACCUMULATIONS

1903.		£ s. d.
Dec. 31st.	To Depreciation on Furniture	65 0 0
	„ Decrease in value of Investments at Current Prices ...	651 3 1
	„ Balance carried forward	15,635 17 7
		£16,352 0 8

GEOLOGICAL ACCOUNT.

1903.			£	s.	d.
Jan. 1st.	By Balance brought forward		7,423	18	11
Dec. 31st.	„ Increased Values at this date, viz.:—				
	Books purchased	£216 15 2			
	Books presented	25 15 6			
			242	10	8
	„ Dividends on £1,900 Consols 2½%		47	5	4
	„ Donations		284	11	0
			£7,998	5	11

1904.				
Jan. 1st.	By Balance brought forward...	£7,682	0	9

ACCOUNT.

1903.		£	s.	d.
Jan. 1st.	By Balance brought forward	14,768	3	11
Dec. 31st.	„ Excess of Receipts over Payments on Capital Account	702	9	0
	„ Excess of Income applicable to 1903	235	2	6
	„ Excess of Receipts over Payments on "Examinations" Account	646	5	3
		£16,352	0	8

1904.				
Jan. 1st.	By Balance brought forward	£15,635	17	7

"PRIZE ENDOWMENT"

1903.				£	s.	d.
Dec. 31st. To decrease in value of Investments				66	14	9
„ Balance carried forward				2,297	2	1
"Penfold Gift"— £503 1*s.* 11*d.* India 3% Stock at 96	482	19	5			
"Beadel Bequest"— £278 0*s.* 3*d.* Midland Railway 2½% Debenture Stock at 82	227	19	6			
Cash in hand	0	14	9			
"Crawter Bequest"— £254 North British Railway No. 1 Preference Stock at 125	317	10	0			
"Daniel Watney Gift"— £413 16*s.* 8*d.* New 2½% Annuities at 88 ...	364	3	5			
"Driver Bequest"— £440 10*s.* 8*d.* India 3½% Stock at 103	453	15	0			
"Galsworthy Gift"— £500 Courage & Co. 3½% B Debenture Stock at 90	450	0	0			
				£2,363	16	10

"PRIZE ENDOWMENT"

1903.	£	s.	d.
Dec. 31st. To Paid for "Beadel Prize"	6	1	0
„ Paid for "Driver Prize"	15	2	7
„ Paid for "Crawter Prize"	10	0	6
„ Paid for "Penfold Medals"	14	0	0
„ Balance carried forward	59	15	0
	£104	19	1

CAPITAL ACCOUNT.

1903.		£	s.	d.
Jan. 1st.	By Balance brought forward	1,913	16	10
	„ Gift of £500 Conrage & Co. 3½% B Debenture Stock by Mr. F. T. Galsworthy for the endowment of a Prize in connection with the Professional Examinations...	450	0	0
		£2,363	16	10
1904. Jan. 1st.	By Balance brought forward	£2,297	2	1

INCOME ACCOUNT.

1903.		£	s.	d.	£	s.	d.
Jan. 1st.	By Balance brought forward				40	5	4
Dec. 31st.	„ Dividends, viz.:—						
	"Beadel" Bequest	6	10	11			
	"Driver" Bequest	14	11	10			
	"Crawter" Bequest	9	11	7			
	"Penfold" Gift	14	5	6			
	"Daniel Watney" Gift	9	15	2			
	"Galsworthy" Gift	8	7	0			
					63	2	0
	„ Excess of Expenditure on the "Driver" Prize, transferred to Revenue General Prize Account				0	10	9
	„ Amount received from the Winner of the Beadel Prize to Excess of Expenditure				1	1	0
					£104	19	1
1904. Jan. 1st.	By Balance brought forward				£59	15	0

Obituary.

CHARLES BEAUMONT (Fellow) was born at East Bridgford, near Nottingham, on the 22nd April, 1862, and was educated at Repton School.

For many years he carried on business as a land agent at East Bridgford, with a branch office at Nottingham, and, on the death of his father, succeeded to his agencies and carried on business principally in Nottingham.

For some months prior to his death, Mr. BEAUMONT was in failing health, and although no fatal termination was thought to be imminent, he died very suddenly on January 5th, 1904.

SIR FREDERICK JOSEPH BRAMWELL, BART. (Associate), born March 7th, 1818, was the third son of the late George Bramwell, banker, and younger brother of the late Lord Bramwell. He was apprenticed at the age of sixteen to John Hague, an engineer, and remained with him for some years after his apprenticeship had expired. After gaining experience in several offices he commenced practice for himself, and soon became known as an authority on waterworks and mechanical engineering.

In 1874 he became President of the Institution of Mechanical Engineers, and eleven years, later in 1885, was elected President of the Institution of Civil

Engineers. In 1888 he was President of the British Association. He was also a Fellow of the Royal Society.

SIR FREDERICK joined The Institution in 1868 about a week after its inception, and was, in fact, the second Associate elected. He became Associate of Council in 1883 and held that position for two years.

SIR FREDERICK received his knighthood in 1881, and eight years later, in 1889, was created a baronet.

He died on Monday, November 30th, 1903, from an attack of cerebral hæmorrhage, at the advanced age of 85.

JOHN POWLES BROWN (Fellow), of the firm of Apperley and Brown, of Hereford, was born at Lewson, Whitchurch, in 1846, and was educated at Gloucester College School. On leaving he interested himself in agricultural pursuits, and, having finally decided to adopt the profession of land agent, went, in 1879, to Hereford, and entered the office of his cousins, Messrs. H. G. and W. H. Apperley, with whom he became a partner in 1881.

Mr. BROWN was elected a Fellow of The Institution on April 30th, 1883.

He was 58 years old at the time of his death, which occurred in April, 1904.

WILLIAM MARLOW GWYTHER (Fellow) began his professional career as a pupil for five years in the office of the late John Barnett, and was then, for a further period of five years, managing clerk in the same office, subsequently engaging in practice on his own account as an architect and surveyor.

Amongst Mr. GWYTHER'S principal architectural works may be mentioned the London Branch of the

Bank of Scotland, Bishopsgate Within, the new head offices of the Yorkshire Banking Company, Leeds, and many other banks in London and the provinces.

Mr. GWYTHER, who was elected a Fellow of The Institution in March, 1876, and was also a Fellow of the Royal Institute of British Architects, died on December 10th, 1903, at his residence, 9, Clifton Hill, N.W., in his 74th year.

SIDNEY LONGHURST HARDING (Fellow), head of the firm of Messrs. Harding and Son, acquired a practical knowledge of surveying as a pupil and assistant to the late Mr. Philip I. Page of St. Albans from 1848-1860, and was his partner till 1870.

Mr. HARDING was retained by the late Marquess of Salisbury on the death of his father in 1868, to value the whole of the Hertford estate for probate duty, and was engaged in similar work for the present Marquess at the time of his succession to the title. He had conducted no less than 51 annual timber sales for the Marquess.

His death occurred on Tuesday, January 26th, 1904, in the 71st year of his age.

HENRY LOFTS (Fellow), head of the firm of Messrs. Lofts & Warner, established his business in Mount Street in 1850. He was surveyor for the London estates of Lord Fitzhardinge, and had the management of other large town and suburban estates. He was also a Board of Trade valuer. Mr. LOFTS, who was elected a Fellow of this Institution in 1875, died at his residence, Oakmere, Potter's Bar, Herts, on Thursday, December 3rd, 1903, after an illness of six weeks' duration, at the age of 75.

No member of the profession was held in more universal respect and esteem than Mr. LOFTS, and no one ever set before him a higher standard of rectitude in all the relations of a wide and varied professional career.

GEORGE SPENCER MATHEWS (Fellow), the fifth son of Jeremiah Mathews, one of the Founder Members of The Institution, was born at Stourbridge in 1836. Part of his early education was received at Kidderminster Grammar School, but on his father's removal to Birmingham he was sent to King Edward's School in that town. Leaving school at the age of 17, Mr. MATHEWS spent two years in special preparation for the University, and then entered Gonville and Caius College, Cambridge. In 1859 he came out seventh wrangler, and the following year was elected a Fellow of his College.

Having decided to follow the surveyor's profession, he commenced his career as a land agent and surveyor in the office of his father, who died in 1883, from which date the business was carried on by the two brothers, William and George.

Among the estates entrusted to their management was that of the late Miss Ryland, whom Mr. MATHEWS advised concerning the gift of Cannon Hill Park, Victoria Park, Small Heath and the munificent donation of £25,000 which was the nucleus of the fund for defraying the cost of the new General Hospital at Birmingham.

Mr. MATHEWS became a Fellow of The Institution in December, 1883, and was elected a Member of Council in May, 1900.

He was the author of a valuable Paper in the *Transactions* on the Final Report of the Local Taxation

Commission, and contributed some very useful annuity tables to Vol. iv. of the *Professional Notes.*

His health had been failing for some months before his death, and in January last he visited Egypt, but the trip did him little good, and he passed away on March 25th, 1904, at the age of 68.

GILBERT MURRAY (Fellow) was the son of a tenant farmer, and was born in the Carrick or southern division of Ayrshire. The first 18 years of his life were devoted to school and to the farm. He then spent three years with an agent on a large estate in the same county. The next few years were passed in Berkshire, Oxfordshire, and Northamptonshire. Thence he migrated to Derbyshire, where 35 years of a useful life were spent on the extensive estates of the Earls of Harrington.

A few years ago he retired to Orchardlee, Girvan, Ayrshire, where he died on October 27th, 1903, at the advanced age of 81.

In all matters relating to farm tenancies, and on questions arising under the Agricultural Holdings Act, Mr. MURRAY was an acknowledged authority. He was gifted by nature with a singular lucidity of mind and a judicial temperament of a high order. No name occurs with a greater frequency than his in the earlier volumes of the *Professional Notes,* while, for his services as Honorary Examiner in "Agriculture" for a long course of years, The Institution owes him a deep debt of gratitude.

FRANCIS NEWMAN (Fellow), who was a native of the Isle of Wight, was elected Surveyor by the Ryde Commissioners in 1857, and held the office after the borough was incorporated until 1872. He was re-elected

in 1875, and continued to serve the town with great efficiency until 1897. Much of the success of the Ryde water supply and drainage arrangements are due to his professional skill.

On the constitution of the Island as an administrative county, he was appointed County Surveyor, which office he held at the time of his death.

Mr. NEWMAN joined The Institution as far back as 1872.

His death occurred on March 30th, 1904.

WILLIAM PAIN (Fellow) acquired a practical knowledge of his profession as a pupil for six years, and afterwards for nine years as assistant, of the late Charles Lee, and was later in partnership with the firm of Lee Bros. and Pain.

Mr. PAIN, who joined The Institution in 1891, was also a Fellow of the Royal Institute of British Architects.

His death occurred at his residence, 40, Baron's Court Road, West Kensington, on December 19th, 1903, in the 66th year of his age.

GEORGE WILLIAM SADLER (Fellow) was born at Charlton Kings, Gloucestershire, in 1830, and commenced business as an architect and surveyor at Cheltenham in 1857. He was for many years borough surveyor, and his practice included agencies for the Pate's Charity, and other estates in the town and district.

His death occurred on November 5th, 1903, at his residence, Keynsham Villa, Cheltenham, after a very short illness.

He was elected a Fellow of The Institution in 1876.

HENRY SPACKMAN (Fellow) for upwards of 50

years carried on an extensive practice as a surveyor, valuer, and land agent at Bath.

He possessed the confidence of a large number of landowners, and was official surveyor to the Bath Charity Trustees and to the Grammar School, and held the appointment of surveyor under the Somerset Drainage Act.

For many years he was the agent for the Earl of Warwick's Somersetshire estates, and, until declining health rendered travelling difficult, he was a director of the Wilts and Dorset Bank, of which he was chairman for one year.

For more than 20 years he had been consulting surveyor to the Bath and West of England and Southern Counties Society, and for 17 years previously he was official superintendent.

He died at Bath in the 73rd year of his age.

EDWARD OGBOURN WELLS (Professional Associate) was the son of Mr. R. F. Wells of Deptford, Kent, who was for many years in the office of Messrs. Clutton, at Reigate, and afterwards at Whitehall Place, London.

Mr. E. O. WELLS entered the office of Messrs. Clutton in 1859, and continued with them until his death. For a number of years past he had chief management of the considerable building estates in London and elsewhere belonging to the Ecclesiastical Commissioners, the Crown, and other owners for whom Messrs. Clutton are the agents, for which work his extensive practical knowledge and experience rendered him peculiarly fitted.

He became a Professional Associate of The Institution on the 17th December, 1883, and in 1903 was elected one of the auditors of The Institution's accounts. He was, however, never called upon to act in this capacity,

owing to his death, which occurred very suddenly on the 3rd March, 1904, in the 60th year of his age.

WILLIAM WILDE (Fellow) served his articles with Messrs. Fowler and Sons, Sheffield, and at the end of this term of apprenticeship qualified as a mining engineer. When the late Mr. W. Fowler commenced the Sheepbridge Iron Works about 1856, Mr. WILDE came with him from Sheffield and subsequently became manager of the Sheepbridge Company's Collieries. This position he retained for many years and only relinquished the managership to set up for himself in Sheffield as a consulting engineer. He, however, did not sever his connection with the company, as, on his retirement from the managership, he became their surveyor and mineral adviser, which position he held up to the time of his death. Mr. WILDE joined The Institution in 1891.

His death occurred on April 12th, 1904, from the effects of a chill, at the age of 65.

LIBRARY.

DONATIONS OF BOOKS, MAPS, &c.,

***June* 1*st*, 1903, *to May* 31*st*, 1904.**

DONORS.	TITLE OF WORK.
Accountant, Editor of the...	"The Accountant," 1903-1904.
Agent-General for New South Wales	"Annual Report of the Department of Mines, New South Wales, for the year 1902." New South Wales, "Report of the Department of Public Works for the year ending June, 1903."
Agricultural Gazette, Editor of the	"The Agricultural Gazette," 1903-1904.
Aitken, J. M.	Highland and Agricultural Society of Scotland "Transactions." Fifth Series. Vols. 13 and 14. 1901 and 1902.
Architect, Editor of the ...	"The Architect," 1903-1904.
Batstone, W. W.	Byrne, A. T., "A Treatise on Highway Construction." Fourth Edition. 1902. Waring, G. E., "Sewerage and Land Drainage." Fourth Edition. 1896.
Binnie, T.	Cunningham, A. S., "Inverkeithing, North Queensferry, Rosyth, and the Naval Base," 1903.
Blashill, T.	Aitken, T., "Road Making and Maintenance." 1900. Boulnois, H. P., "Construction of Carriageways and Footways." Byrne, A. T., "A Treatise on Highway Construction." Fourth Edition. 1900. Malo, M. L., "On Asphalte Roadways." 1886. Road Construction and Maintenance (Prize Essays). 1892.
British Architect, Editor of the	"The British Architect," 1903-1904.
British Fire Prevention Committee	Fire Tests with Doors. Fire Tests with Floors. Fire Tests with Partitions. Official Report of the International Fire Prevention Congress held in London. July 6th to 9th, 1903.

Builder, Editor of the ...	"The Builder," 1903-1904.
Builders' Journal, Editor of the	"The Builders' Journal," 1903-1904.
Builders' Reporter, Editor of the	"The Builders' Reporter," 1903-1904.
Building News, Editor of the	"The Building News," 1903-1904.
City Surveyor of Birmingham	Birmingham. Report of the City Engineer and Surveyor, 1902-1903.
Clancy, J. C.	Clancy, J. C., "Aid to Land Surveying," 1 02 Clancy, J. C., "Calculating Tables in English," Part 1. 1902.
Colyer, F.	Colyer, F., "Modern Sanitary Appliances." 1892. Colyer, F., "Pumps and Pumping Machinery," Vol. 2. 1900. Colyer, F., "Steam Boilers and Engines." 1892.
Contract Journal, Editor of the...	"The Contract Journal," 1903-1904.
Cranfield, S. W., and Potter, H. I.	Cranfield, S. W., and Potter, H. I., "Houses for the Working Classes in Urban Districts." 1900.
Dodd, H. I.	North of England Institute of Mining and Mechanical Engineers' "Transactions," Vol. 18, 1868.
English Arboricultural Society	"Transactions," Vol. 5, Part 3, 1903-1904.
Estates Gazette, Editor of the...	"The Estates Gazette," 1903-1904.
Field, Editor of the ...	"The Field," 1903-1904.
Fuller, H. H.	Lithographic Sketch of the North Bank of the Thames. 1825.
Godfrey, C. H.	Shanghai Municipal Council, Land Assessment Schedules and Plans, 1903. Shanghai Society of Engineers and Architects' "Transactions," Vol. 3, 1902-1903.
Higginson, N.	Map of Peru.
Hodgson, J. S.	"Public Works," Vols. 1 and 2, 1903-1904.
Horticulture, Journal of, Editor of the	"The Journal of Horticulture," 1903-1904
Illustrated Official Journal (Patents), Editor of the...	"The Illustrated Official Journal (Patents)," 1903-1904.

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12, GREAT GEORGE STREET, WESTMINSTER, S.W.

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Honorary Members.

Date of Election and of Transfer.	HONORARY MEMBERS.	Address.
1897. Feb. 17	ADDINGTON, THE RIGHT HON. LORD	24, Prince's Gate, S.W.
1895. Jan. 21	BEDFORD, HIS GRACE THE DUKE OF	15, Belgrave Square, S.W.
1873. Mar. 20	CARRINGTON, THE RIGHT HON. THE EARL, G.C.M.G.	50, Grosvenor Street, W.
1889. Dec. 9	CHAPLIN, THE RT. HON. HENRY, M.P.	Blankney Hall, near Lincoln.
1887. Jan. 24	COBHAM, THE RIGHT HON. LORD VISCOUNT	Hagley Hall, Stourbridge.
1883. May 21	DEVONSHIRE, HIS GRACE THE DUKE OF, K.G.	Devonshire House, Piccadilly, W.
1881. Mar. 21 1886. Mar. 8	GRANTHAM, THE HON. SIR WILLIAM	100, Eaton Square, S.W.
1880. Dec. 13 1895. May 13	GULLY, THE RIGHT HON. WILLIAM COURT, K.C.	Speaker's House, Palace of Westminster, S.W.
1901. Feb. 26	HOWARD, EDWARD STAFFORD, C.B.	Office of Woods, &c., 1, Whitehall Place S.W.
1901. Nov. 25	HOWE, THE RIGHT HON. THE EARL	Curzon House, Curzon Street, W.
1881. Dec. 13 1895. Nov. 11	JAMES OF HEREFORD, THE RIGHT HON. LORD	41, Cadogan Square, S.W.
1889. Mar. 4	JERSEY, THE RIGHT HON. THE EARL OF, G.C.B., G.C.M.G.	Middleton Park, Bicester, Oxon.
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1869. July 26 1871. Feb. 27	LEACH, LIEUT.-COL. SIR GEORGE ARCHIBALD, K.C.B.	6, Wetherby Gardens, South Kensington S.W.
1885. Apr. 20	M'CLELLAN, JOHN B., M.A., THE REV.	Royal Agricultural College, Cirencester
1869. Feb. 22 1884. Feb. 19	PHILBRICK, HIS HONOUR JUDGE FREDERICK ADOLPHUS, K.C. ...	Westfield, Wimborne, Dorsetshire.
1904. Feb. 8	PORTER, SIR ALFRED DE BOCK, K.C.B.	Ecclesiastical Commissioners' Office, 10 Whitehall Place, S.W.
1879. April 28 1892. Dec. 5	SMITH, HIS HONOUR JUDGE LUMLEY, K.C.	25, Cadogan Square, S.W.

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1559	1889, Jan. 28	ABBEY, JOE BURMAN, A.M.I.C.E.	34A, New Street, Huddersfield.
1034	1884 Jan. 14	ABBOTT, ROBERT THOMAS G. ...	Whitley House, Malton, Yorkshire.
2740	1895, Sept. 2	ABBOTT, JOSEPH	33, Dawson Street, Dublin.
1499	1888, Nov. 26	ABBOTT, WILLIAM	24, Coleman Street, E.C., and Holbea Lincoln.
2449	A. 1891, Nov. 4 F. 1895, Jan. 21	*ABRAMS, BENJAMIN PERCY ...	132, Abbey Road, N.W., and 18 and Ironmonger Lane, E.C.
2741	1895, Sept. 2	ADAIR, JOHN OLPHERT	Ballynoe, Tullow, Co. Clare.
3171	1897, Oct. 26	ADAM, THOMAS	27, Union Street, Glasgow.
1105	1884, Feb. 25	ADAMS, HENRY, M.I.C.E.	60, Queen Victoria Street, E.C.
3192	A. 1897, Oct. 26 F. 1901, Nov. 25	*ADDIE, JOHN HEATHCOTE	Estate Office, Llanover, Abergaven Monmouthshire.
1504	1888, Dec. 10	ADDIE, PETER...	City Valuers Department, The Coun House, Bristol.
612	1881, Feb. 21	ADDIE, WILLIAM FORRESTER ...	Powis Castle Estate Office, Welchp Montgomeryshire.
3072	A. 1896, Oct. 28 F. 1900, Oct. 1	*ADDISCOTT, HENRY HUGH	25, Doyle Road, Upper Tooting Park, S.
1439	A. 1888, Jan. 9 F. 1891, Jan. 5	*†ADKIN, BENAIAH WHITLEY ...	14, Queen Street, Cheapside, E.C.
364	A. 1881, Dec. 19 F. 1886, Nov. 8	ADKIN, CHARLES DUNCAN	Wantage and Abingdon, Berks.
3452	1899, Feb. 16	AITKEN, JOHN MALCOLM	Castlemilk Estates Office, Norwo Lockerbie, Dumfriesshire.
3057	1896, Oct. 28	ALCOCK, SAMUEL	Royal Engineer Office, Curragh Ca Kildare, Ireland.
2743	1895, Sept. 2	ALEXANDER, HENRY GEORGE SAMUEL, COLONEL	Derrygally, Moy, Co. Tyrone.
1479	1888, Apr. 30	ALLEN, GEORGE	Strangways, Marnhull, Blandford. Dor
2930	A. 1895, Oct. 24 F. 1898, Nov. 14	*ALLEN, PERCY	Warrington House, Duppas Hill, Croyd
3338	A. 1898, Oct. 29 F. 1902, Apr. 28	*ALLSEBROOK, ARTHUR, B.Sc. (*Edin.*)	Estate Office, Madresfield, Malv Worcestershire.
3073	A. 1896, Oct. 28 F. 1902, Dec. 8	*AMBLER, SYDNEY WOOD	Estate Office, Sandbeck Park, Tickl near Rotherham, Yorkshire.
2503	A. 1892, Nov. 28 F. 1893, Nov. 13	*AMOS, FRANK	3, The Parade, Canterbury, Kent.
2714	1895, Sept. 2	ANDERSON, ALEX. CAREW	Ballymountain, Waterford.
3172	1897, Oct. 26	ANDERSON, ROBERT	Property Agent's Office, 95, Bath Str Glasgow.
597	A. 1881, Jan. 10 F. 1884, Mar. 10	ANDERSON, ROBERT	The Barton, Cirencester.
1635	1889, Dec. 9	ANDREW, THOMAS HAWKES ...	Northfield, Minehead, Somerset.
1792	1890, May 29	ANDREWS, JOHN	13, Basinghall Street, E.C.
3312	A. 1898, Oct. 29 F. 1900, Feb. 12	*ANGEL, FRANCIS HOUGHTON ...	33, Compton Crescent, Chiswick, W.
1634	A. 1889, Nov. 25 F. 1892, Nov. 14	*ANSCOMBE, ERNEST	8, Wellington Rd, St. John's Wood, N

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1869, May 3	ARDING, CHARLES B., A.R.I.B.A.	22, Surrey Street, Strand, W.C.
A. 1894, Oct. 30 F. 1896 Mar. 16	*ARIS, JOHN WHITTON, M.A. *(Oxon.)*	Loys Weedon House, near Towcester, Northamptonshire.
1884, Apr. 21	ARMISTEAD, RICHARD, A.M.I.C.E.	8, Charles Street, Bradford, Yorkshire.
1895, Sept. 2	ARMSTRONG, ALEXANDER MOORE, CAPT.	Culmore House, Kilrea, Co. Londonderry.
1896, Jan. 21	ARMSTRONG, ELLIOTT GRAHAM, B.A. *(Dublin)*	Rent Office, Abascragh, Ballinasloe, Co. Galway, Ireland.
1882, Apr. 24	ARMSTRONG, THOMAS JOHN ...	14, Hawthorn Terrace, Newcastle-on-Tyne.
1890, Feb. 24	ARMYTAGE, SIR GEORGE, BART.	Kirklees, Brighouse, Yorkshire.
1888, Dec. 10	ARNOLD, FRANCIS...	Chilland, Winchester, and Hambledon, Hants.
1890, Feb. 10	ARNOLD, WILLIAM	6A, George St., Tamworth, Staffordshire.
A. 1896, June 2 F. 1900, Nov. 12	*ARNO, SAMUEL	63, Cawley Road, South Hackney, N.E.
A. 1885, Dec. 7 F. 1896, Jan. 20	*ARNOTT, JOHN	Church Street, Woodbridge, Suffolk.
1889, Jan. 14	ASHDOWN, AUGUSTUS HARDING ...	Uppington, Wellington, Salop.
A. 1896, Oct. 28 F. 1898, Oct. 3	*ASHENDEN, LEONARD THOMAS ...	The Kent Fire Office, 29, Westgate Canterbury, Kent.
A. 1890, Feb. 24 F. 1901, July 2	*†ASSITER, HARRY G.	9, John St., Adelphi, W.C., & The Weald House, Harrow Weald, Middlesex.
1891, Nov. 4	AULT, EDWIN	47, Victoria Street, Westminster, S.W.
1891, Nov. 4	AUSTEN, FRANK	Marling Place, Wadhurst, Sussex.
A. 1887, Dec. 19 F. 1891, Oct. 15	*AUSTIN, RICHARD, JUN.	Bishop's Waltham, Hants.
1875, Nov. 8	AUSTIN, RUSSELL GARDENER ...	Hertford.
A. 1890, Nov. 22 F. 1903, May 18	*AYLEN, CECIL HUGH	Huntingdon Lodge, Benhill Road, Sutton, Surrey.
1891, Jan. 17	AYNSLEY, ROBERT JOHN	Gosforth, Newcastle-on-Tyne, Northumberland.
1891, Jan. 17	BACON, FRANK MACE	Attleborough, Norfolk.
1891, Jan. 17	BACON, HORACE	Attleborough, Norfolk.
A. 1868, Nov. 2 F. 1887 Feb. 7	BADCOCK, PHILIP	9, Whitehall Place, S.W.
A. 1897, Oct. 26 F. 1901, Nov. 25	*BADDELEY, BERNARD BERESFORD	15, Nicholas Lane, E.C.
1900, Oct. 30	BAGOT, LEWIS BROWN	R.E. Office, Headquarters Office, Victoria Barracks, Belfast, Co. Antrim.
A. 1881, Dec. 19 F. 1889, Nov. 11	BAILEY, LEONARD	Orgreave, Limpsfield, Surrey.
A. 1893, Oct. 4 F. 1896, Feb. 17	*BAILEY, LOUIS HEWITT...	Athenæum Buildings, Friar Street, Reading, Berks.
1891, May 23	BAILEY, WILLIAM SMITH	4, Kirkgate, Newark-upon-Trent.
1895, Sept. 2	BAILLIE, JOHN ROBERT, LT.-COL.	Abercorn Estate Office, Strabane, Co. Tyrone.
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1690	A. 1890, Jan. 6 F. 1891, Dec. 7	*BALL, WILLIAM ALFRED	2, Pall Mall East, Charing Cross, S.W.
479	1877, Mar. 12	BALLS, JAMES MAYHEW	Castle Hedingham, Essex.
1879	A. 1890, Nov. 22 F. 1893, Nov. 13	*BANCROFT, FREDERICK HERBERT	88, Mosley Street, Manchester.
1932	A. 1895, Oct. 24 F. 1901, Feb. 11	*BANKS, FREDERICK STUART ANGUS	4, Bank Buildings, Cricklewood, N.W.
1156	1891, Nov. 4	BANKS, JOHN	Kendal, Westmoreland.
1916	1891, Jan. 17	BANKS, THOMAS	60, King Street, Manchester.
606	1881, Feb. 7	BANNISTER, THOMAS	Limehurst, Hayward's Heath, Sussex.
712	1882, Jan. 30	BARFIELD, FREDERIC HENRY ...	56, Lancaster Road, Stroud Green, N.
4123	1903, Oct. 28	*BARKER, CHARLES	83, Mason's Hill, Bromley, Kent.
1510	A. 1899, Oct. 30 F. 1901, July 2	*BARKER, FREDERICK GEORGE ...	3, Bucklersbury, E.C.
1504	A. 1892, Nov. 28 F. 1898, Nov. 14	*BARKER, GEOFFREY LIONEL ...	Teigngrace House, Teigngrace, Newt Abbot, Devonshire.
1985	1891, Mar. 14	BARKER, HORACE RICHARD ...	13, Lowndes Street, Belgravia, S.W.
4119	1903, Oct. 28	BARKSHIRE, CHARLES ROBERT ...	Royal Engineer Office, Inner Lin Chatham, Kent.
1661	A 1889, Dec. 9 F. 1891, June 29	*BARNES, GEORGE FREDERICK ...	5, New Square, Chesterfield, Derbyshi
983	1883, Dec. 17	BARNES, JOHN WILLIAM JAMES...	Albion Chambers, King St., Nottingha
3499	1899, Oct. 30	BARNES, WILLIAM ARTHUR, B.A. (*Dublin*)	Westland, Kells, Co. Meath.
1307	1886, Feb. 22	BARNES-WILLIAMS, THOMAS, F.R.I.B.A.	30, Coleman Street, E.C.
3345	A. 1898, Oct. 29 F. 1899, Oct. 2	*BARNS, STEPHEN ALLEN	51, Brooke Road, Stoke Newington, N.
1157	1891, Nov. 4	BARR, JAMES, M.I.C.E.	221, West George Street, Glasgow.
1158	1891, Nov. 4	BARRATT, FREDERICK WILLIAM	30, Heathland Road, Stoke Newington,
2749	1895, Sept. 2	BARRINGTON, JOHN BEATTY ...	Barrington Street, Limerick.
2159	1891, Nov. 4	BARROW, THOMAS ROBERT... ...	Post Office Avenue, Southport, Lancashi
1917	1891, Jan. 17	BARPY, DENNETT HEBER	21, Old Square, Lincoln's Inn, W.C.
2058	1891, May 23	BARTON, HARRY HOWELL	17, Guildhall Street, Folkestone, Kent
2750	1895, Sept. 2	BARTON, HENRY DUPRÉ MALKIN	The Bush, Antrim, Ireland.
2562	1893, Oct. 4	BARTON, SIR JOHN GEORGE, C.B.	General Valuation and Boundary Sur Office, 6, Ely Place, Dublin.
2751	1895, Sept. 2	BARTON, ROBERT CULLEY	Millmount Rd., Mullingar, West Mea
3642	A. 1900, Oct. 30 F. 1901, Nov. 25	*BASLEY, HAROLD PULLAM	75, Addison Road, Hove, Sussex.
1056	1884, Jan. 28	BATE, THOMAS	Salusbury House, 87, High Rd., Kilbu N.W.
1986	1891, Mar. 14	BATEY, HENRY SIMPSON	51, King Street, Manchester.
726	1882, Feb. 13	BATH, FRED., F.R.I.B.A.	Crown Chambers, and Sandown Hou Church Fields, Salisbury, Wilts.
1918	1891, Jan. 17	BATHER, JOHN T.	9, The Square, Shrewsbury.
3454	1899, Feb. 16	BATHGATE, CHARLES S.	26, Bellgrove Street, Glasgow.
2161	1891, Nov. 4	BATSTONE, ROWLAND ROBERT ...	110, Cannon Street, E.C.
1580	1889, Feb. 25	BATTERBURY, THOMAS, F.R.I.B.A	Birkbeck Bank Chambers, Chanc Lane, W.C.

	Date of Election and of Transfer.	FELLOWS	Address.
	1891, Nov. 4	BATTING, WALTER...	7, John Street, Adelphi, W.C.
	A. 1898, Oct. 29 F. 1901, Nov. 25	*BAVERSTOCK, HAROLD BRIDGE ...	Godalming, Surrey.
	1892, Feb. 26	BAXTER, GEORGE	1, Frederick's Place, E.C., and Guildford.
	A. 1890, Nov. 22 F. 1898, Feb. 7	*BEADEL, MAURICE FREDERICK ...	97, Gresham Street, E.C.
	1891, Nov. 4	BEALE, ROBERT J., A.R.I.B.A. ...	17, Old Queen Street, Westminster, S.W.
	1895, Sept. 2	BEAMISH, WILLIAM HENRY... ...	2, South Mall, Cork.
	A. 1885, Dec. 7 F. 1889, Nov. 11	*BEARD, EDWIN THOMAS, A.M.I.C.E.	4, The Crescent, Scarborough.
	1898, Feb. 18	BEATTIE, WILLIAM HALDEN... ...	11, Glencairn Crescent, Edinburgh.
	1891, Nov. 4	BECK, ARTHUR CLEMENT	Wyton Manor, Huntingdon.
	1888, Feb. 20	BECK, EDWARD WILLIAM	16, Bank Street, Norwich.
	1889, Jan. 28	BECKWITH, HENRY LANGTON ...	3, Cook Street, Liverpool.
	A. 1883, May 25 F. 1887, May 23	*BEDELLS, CHARLES HERBERT ...	6, John Street, Bedford Row, W.C.
	1888, Jan. 9	BEKEN, GEORGE	73, Moorgate Street, E.C.
	A. 1894, Oct. 30 F. 1903, May 18	*BEKEN, GEORGE KINGSNORTH ...	73, Moorgate Street, E.C.
	1891, Mar. 14	BEKEN, WALTER	73, Moorgate Street, E.C.
	A. 1889, Feb. 25 F. 1895, Dec. 9	*BELCHER, EDWARD JOHN	Wantage, Berks.
	1898, Oct. 29	BELL, ANDREW WALKER	Corporation Buildings, Dunfermline.
	A. 1894, Oct. 30 F. 1898, May 16	*BELL, HERBERT OWEN...	9, Victoria Street, S.W.
	1888, Feb. 20	BELL, JOSEPH ASKEW	Rufford Estate Office, Ollerton, Notts.
	A. 1889, Dec. 9 F. 1894, Apr. 2	*BELLINGHAM, ARCHIBALD TURNER	Seaford House, Belgrave Square, S.W.
	1875, Mar. 1	BENNETT, THOMAS OATLEY... ...	Homersfield, St. Stephen's Gardens, Twickenham, Middlesex.
	A. 1884, Nov. 10 F. 1890, Dec. 8	*BENSON, ROBERT ALAN	Duchy of Cornwall Office, Liskeard, Cornwall.
	1884, Dec. 8	BERTWISTLE, JAMES	1, Tackett's Street, Blackburn.
	1883, Dec. 17	BETTRIDGE, EDWARD	28, Waterloo Street, Birmingham.
	A. 1892, Nov. 28 F. 1894, Oct. 10	*BEVEN, SEPTIMUS	15, Moorfields, E.C.
	1869, Mar. 22	BIDWELL, CHAS. (*Vice-President*)	Ely, Cambridgeshire.
	A. 1894, Feb. 22 F. 1896, Feb. 3	*BIDWELL, JOHN EVANS...	10, Barton Road, Cambridge.
	A. 1897, Oct. 26 F. 1900, May 21	*BIDWELL, PHILLIP SHELFORD ...	St. Mary's Street, Ely, Cambridgeshire.
	A. 1898, Feb. 18 F. 1901, July 2	*BIGG, LIONEL THURSFIELD	Marske-by-the-Sea R.S.O., Yorkshire.
	1896, June 2	BIGGER, JOHN JAMES EASTWOOD	Fairymount, Dundalk, Ireland.
	1898, Oct. 29	BILLINGHAM, JOHN ALFRED LAWRENCE	Royal Engineer Office, St. Lucia, West Indies.
	1891, Nov. 4	BILSON, JOHN, F.R.I.B.A.	23, Parliament Street, Hull, Yorkshire.
	1891, May 23	BINGHAM, ALFRED JOHN	Nalder Hill House, Newbury, and 5, Bolton Street, Piccadilly, W.
	1891, Jan. 17	BINGHAM, FREDERICK HENRY ...	5, Bolton Street, Piccadilly, W.
	1875, Apr. 12	BINGHAM, REUBEN	5, Bolton Street, Piccadilly, W.
131	1868, Oct. 26	BINNIE, THOMAS ... ... (*Member of Council*)	207, Hope Street, Glasgow.
	1898, Oct. 29	BINNIE, THOMAS, JUN....	207, Hope Street, Glasgow.

Dip. No.	Date of Election and of Transfer.	FELLOWS.	Address.
934	A. 1893, Oct. 24 F. 1900, Oct. 1	*BIRCH, FRANCIS JULIAN LAURENCE	Hillside, Yatton, Somerset.
3569	A. 1893, Oct. 4 F. 1895, Apr. 29	*BIRCH, RICHARD ELWYN, B.A. (*Cantab.*)	Bryncelyn, St. Asaph, North Wales.
1330	A. 1886, Dec. 6 F. 1889, Nov. 11	*BIRCH, WALTER DE HOGHTON ...	Hoghton Estate Office, Walton Hall, Preston, Lancashire.
1490	1888, Nov. 12	BIRD, JAMES BINFIELD...	West Cowes, Isle of Wight, & 28, Que Street, E.C.
1636	1889, Dec. 9	BIRD, JOHN	Brampton, Huntingdon.
1154	1884, May 5	BIRD, WALTER	24, Wynnstay Gardens, Kensington, W
1351	A. 1887, Jan. 10 F. 1889, Feb. 25	BIRKETT, TOM	Foxton House, Penrith, Cumberland.
1794	1890, May 29	BISHOP, CHARLES	Regent Circus, Swindon, Wilts.
2563	1893, Oct. 4	*BLACKBOURN, HENRY	6, Queen Anne's Gate, S.W.
1326	1886, Dec. 6	BLACKFORD, ARTHUR	61 and 62, Chancery Lane, W.C.
2754	1895, Sept. 2	BLACKLEY, TRAVERS ROBERT ...	Drumbar, Cavan, Ireland.
3455	1899, Feb. 16	BLAIR, ALEXANDER	198, West George Street, Glasgow.
3200	A. 1897, Oct. 26 F. 1898, June 6	*†BLAKE, EDWIN HOLMES	82, Victoria Street, S.W.
1262	1885, Mar. 23	BLAKE, FREDERICK	46, Commercial Road, Portsmouth, Han
2168	1891, Nov. 4	BLAKE, GEORGE	Stradey Estate Office, New Rd., Llanel Carmarthenshire.
883	1883, Feb. 12	BLAKE, WILLIAM JOHN...	45, High Street, Croydon.
773	1882, Mar. 13	BLAKEMORE, WILLIAM AGUTTER	6, Duke Street, Adelphi, W.C.
1057	1884, Jan. 28	BLASHILL, THOMAS, F.R.I.B.A. (*Member of Council*)	29, Tavistock Square, W.C.
2169	1891, Nov. 4	BLENCOWE, GEORGE	Bury St. Edmund's, Suffolk.
2170	1891, Nov. 4	BLETSOE, HENRY HOPKINSON ...	Thrapston, Northamptonshire.
3645	A. 1900, Oct. 30 F. 1901, Nov. 25	*BLISS, THOMAS CUSHWAY	106, Cheapside, E.C.
1988	1891, Mar. 14	BLIZARD, JOHN HY., A.M.I.C.E.	Lansdowne House, Castle Lane, Southampton.
511	A. 1878, May 13 F. 1887, Mar. 7	BLOSSE, EDWARD F. LYNCH ...	Porthcawl, Bridgend, Glamorganshir
3154	A. 1897, Feb. 17 F. 1900, May 21	*BLUNT, MONTAGUE CECIL	33 and 34, Savile Row, W.
788	A. 1882, Feb. 27 F. 1889, Nov. 11	BOA, ANDREW...	Great Thurlow, Newmarket, Suffolk.
1882	A. 1890, Nov. 22 F. 1893, Aug. 9	*BODY, ARTHUR, A.R.I.B.A. ...	Princess Chambers, Princess Squ Plymouth, Devon.
1452	1888, Feb. 6	BODY, JOHN BOND...	Princess Chambers, Princess Squ Plymouth.
330	1874, Feb. 2	BOLAM, CHARLES GODFREY ...	Chesham House, Kettering, Northa tonshire, and 82 & 83, Pal Chambers, S.W.
408	1875, Dec. 13	BOLDEN, JOHN LEONARD, M.A. (*Cantab.*)	Duchy of Lancaster Office, Lanca Place, W.C.
2060	1891, May 23	BOND, DOUGLAS VALE	22, Surrey Street, Strand, W.C.
199	1869, May 3	BOND, ERASMUS	Combe Lodge, Kingston Hill, Surrey.
813	1882, May 22	BOOKER, ALGERNON ERSKINE ...	Albion House, Hyde Park Square, W.
3502	1899, Oct. 30	*BOOKER, FRANK WILLIAM	7, Albion Chambers, King St., Nottingh

† Special Sanitary Science Certificate.

	Date of Election and of Transfer.	FELLOWS.	Address.
[illegible]	A. 1894, Oct. 30 F. 1895, Nov. 1	*BOOTH, GILBERT WILLIAM	3, Adelaide Street, Charing Cross, W.C
[illegible]	1891, Nov. 4	BOOTHBY, HENRY VERNON	Estate Office, Keele, Newcastle, Staffor shire.
[illegible]	A. 1890, Nov. 22 F. 1891, June 29	*BOULTING, FREDERICK EDWARD...	182, Oxford Street, W.
[illegible]	1890, May 29	BOURNE, ROBERT ELLIOTT	Elwell, Totnes, Devon.
[illegible]	A. 1897, Oct. 26 F. 1902, Dec. 8	*BOWDEN, HARRY	5, Worcester Gardens, Clapham Commo S.W.
[illegible]	1883, Dec. 10	BOWDEN, JOHN	14, Ridgefield, Manchester.
[illegible]	A. 1891, May 23 F. 1899, Nov. 13	*BOWDEN, JOHN FRIENDSHIP ...	Bedford Chambers, Exeter, Devon.
[illegible]	1891, Nov. 4	BOWDICH, JOHN	24, Coleman Street, E.C.
[illegible]	1890, Apr. 14	BOWDITCH, HENRY	103, George Street, Croydon.
[illegible]	1896, June 2	BOWEN, EDWARD FERGUSON ...	Mantua House, Castlerea, Co. Roscoı mon, Ireland.
[illegible]	1890, Apr. 14	BOWLEY, JOHN CROSS	Norman Terrace, Hastings, Sussex.
[illegible]	1888, Nov. 12	BOWMAN, JOHN JAMES...	Helmsley R.S.O., Yorkshire.
[illegible]	1789, Oct. 26	BOXSHALL, HENRY EDWIN	Horse Guards, Whitehall, S.W.
[illegible]	1890, Jan. 6	BOYD, JOHN JERMYN	Heath View, Weybridge, Surrey, aı 125, Piccadilly, W.
[illegible]	1886, Nov. 22	BRACKETT, ARTHUR WILLIAM ...	27, High Street, Tunbridge Wells, Ker
[illegible]	A. 1890, Nov. 22 F. 1892, May 30	*BRACKETT, FREDERICK HENRY ...	27, High Street, Tunbridge Wells, Ker
[illegible]	1883, Jan. 29	BRACKETT, WILLIAM	27, High Street, Tunbridge Wells, Ker
[illegible]	A. 1897, Oct. 26 F. 1902, Apr. 28	*BRACKETT, WILLIAM NEWBEGIN	Market Place, Retford, Nottinghamshir
[illegible]	A. 1894, Oct. 30 F. 1895, July 29	*BRADLEY, JAMES WILLIAM, A.M.I.C.E.	Town Hall, Charing Cross Road, W.C.
[illegible]	1891, Nov. 4	BRADLEY, WILLIAM EDWARD ...	The Hall, Ebberston, York.
[illegible]	1895, Sept. 2	BRADSHAW, ROBERT MACNEVIN	26, South Frederick Street, Dublin.
[illegible]	1889, Jan. 28	BRADY, CHARLES ALLDIS	17, Warren Street, Stockport, Cheshir
[illegible]	A. 1888, Dec. 10 F. 1893, Nov. 13	*BRADY, RALPH HOLLINSHED ...	78, Cross Street, Manchester.
[illegible]	1891, Mar. 14	BRADY, WILLIAM HOLLINSHED ...	17, Warren Street, Stockport, Cheshir
[illegible]	1887, Dec. 5	BRAILSFORD, HENRY	Park Nook, near Derby.
[illegible]	1888, Jan. 23	BREACH, BENJAMIN I'ANSON ...	29, Fleet Street, E.C.
[illegible]	1895, Oct. 24	*BREEDS, ARTHUR OWEN	62, Lincoln's Inn Fields, W.C.
[illegible]	1882 Feb. 13	BRERETON, FRANC SADLEIR, F.R.I.B.A.	292, High Holborn, W.C.
[illegible]	1891, Nov. 4	BRERETON, THOMAS BLOOMFIELD SADLEIR	292, High Holborn, W.C.
[illegible]	1891, Jan. 17	BREWER, FRANK JOHN, F.R.I.B.A.	2, Upper Hill Street, Richmond, Surre
[illegible]	1891, Jan. 17	BRIANT, ROBERT	200, Kennington Park Road, S.E.
[illegible]	1895, Sept. 2	BRIDGE, HENRY POWELL	Racket Hall, Roscrea, Tipperary.
[illegible]	1882, Dec. 18	BRIDGEWATER, BENTLEY JAMES	80, Cheapside, E.C.
[illegible]	1887, Feb. 21	BRIDGFORD, ERNEST JAMES ...	28, Cross Street, Manchester.
[illegible]	1886, Mar. 8	BRIDGFORD, COL. SIR ROBERT, K.C.B.	28, Cross Street, Manchester.
[illegible]	A. 1895, Oct. 28 F. 1900, Feb. 12	*BRIGHTON, GEORGE LAWRENCE	20, Queenswood Road, Forest Hill, S.I

Mip. No.	Date of Election and of Transfer.	FELLOWS.	Address.
506	A. 1892, Nov. 28 F. 1896, Jan. 6	*BRINKWORTH, ROBERT EDWIN ...	16, Old Bond St., Bath, Somersetshire, an St. Mary's St., Chippenham, Wiltshir
655	A. 1894, Oct. 30 F. 1899, Mar. 20	*BRINSLEY, HERBERT GEORGE WILLIAM	30 and 31, New Bridge Street, E.C.
759	1895, Sept. 2	BROADLEY, EDWARD BARRY, MAJOR	73, South Mall, Cork.
177	1891, Nov. 4	BROCKLEBANK, JOHN	58A, Yorkshire Street, Rochdale, Lanc shire, and Todmorden, Yorkshire.
178	1891, Nov. 4	BRODRICK, FREDERICK STEAD ...	York Chambers, Lowgate, Hull.
990	1891, Mar. 14	BROOKS, CHARLES WILLIAM, A.R.I.B.A.	63, Finsbury Pavement, E.C.
938	A. 1895, Oct. 24 F. 1897, Nov. 8	*BROOKS, JOHN MCMULLEN	4, Queen Victoria Street, E.C.
939	A. 1895, Oct. 24 F. 1899, Mar. 20	*BROOKS, PHILIP FULLER	4, Queen Victoria Street, E.C.
834	1890, Nov. 22	BROSTER, ROBERT BUCK	Craven Bank Chambers, North Stree Keighley, Yorkshire.
135	A. 1891, May 23 F. 1893, May 29	*BROWN, ALEXANDER BURNETT ...	Amberley House, Norfolk St., Stran W.C.
353	A. 1898, Oct. 30 F. 1903, Mar. 9	*BROWN, ARTHUR ALLEN	83, High Street, Croydon, Surrey.
664	A. 1889, Dec. 9 F. 1895, Mar. 18	*BROWN, ARTHUR MACDONALD, B.A. (*Cantab.*)	Tring, Herts.
456	1889, Feb. 16	BROWN, CHARLES	Kerse Estate Office, Falkirk, Stirlingshi
500	1888, Nov. 26	BROWN, FRANK JOHN	Tring, Herts.
081	A. 1896, Oct. 28 F. 1902, July 14	*BROWN, FREDERICK	London County Council, Spring Garden S.W.
634	1881, Dec. 19	BROWN, GEORGE JAMES	34, Great George Street, S.W.
507	A. 1892, Nov. 28 F. 1899, Jan. 23	*BROWN, GEORGE TURVILLE... ...	34, Great George Street, S.W.
061	1891, May 23	BROWN, WILLIAM	138, West Regent Street, Glasgow.
967	A. 1902, Oct. 28 F. 1904, Jan. 25	*BROWN, WILLIAM HENRY ...	40, Fawnbrake Avenue, Herne Hill, S.I
761	1895, Sept. 2	BROWNE, ERNEST H.	Brookfield, Tullamore, King's Co.
142	A. 1884, Apr. 21 F. 1890, Apr. 14	BROWNE, FLINT	30, Watling Street, E.C.
762	1895, Sept. 2	BROWNLOW, CHARLES	Estate Office, Portaferry, Co. Down.
763	1895, Sept. 2	BROWNLOW, CLAUDE	Estate Office, Coolderry, Carrickmacros Co. Monaghan.
016	A. 1884, Jan. 14 F. 1890, Mar. 24	BRUCE, ROBERT KNIGHT	Hathersage, by Sheffield.
945	1902, Oct. 28	BRUNICARDI, DOMINIC N.	Valuation Office, 6, Ely Place, Dublin.
482	1892, Feb. 26	BRUTON, HENRY WILLIAM	Albion Chambers, Gloucester.
500	1899, Oct. 30	BRYANT, GEORGE HERBERT ...	Royal Engineer Office, Castle Terrac Edinburgh.
180	1891, Nov. 4	BRYDEN, ROBERT A., F.R.I.B.A.	Richmond Chambers, 147, Bath Stree Glasgow.
291	1886, Jan. 11	BRYDON, ROBERT	The Dene, Seaham Harbour, Durham.
77	1868, July 13	BUCK, ALBERT (*Past-President*)	Worcester.
542	1889, Jan. 14	BUCK, HERBERT WILSON	Pierpoint Street, Worcester.
284	A. 1885, Dec. 7 F. 1889, Jan. 14	*BUCKLAND, ALFRED VIRGOE ...	8, Frederick's Place, Old Jewry, E.C.
270	1871, Dec. 18	BUCKLAND, FRANK BOWRY... ...	Windsor, Berks.

Date of Election and of Transfer.	FELLOWS.	Address.
1890, Jan. 6	BUCKLAND, HENRY DUNEAU ...	4, Bloomsbury Sq., W.C., and Windsor.
A. 1891, May 23 F. 1894, Oct. 10	*BUCKLAND, SIDNEY CRAWFORD...	4, Bloomsbury Square, W.C., and Windsor, Berks.
1890, Nov. 22	BUCKLEY, GEORGE	Tower Chambers, Halifax, Yorkshire.
1891, Nov. 4	BULL, ALFRED EDWIN	35, Craven Street, Charing Cross, W.C.
1891, Nov. 4	BULL, WALTER	35, Old Jewry, E.C.
1891, Jan. 17	BURCHELL, SIDNEY HERBERT ...	Reigate, Surrey, & Wool Exchange, E.C.
1889, Jan. 14	BURD, TIMOTHEUS HENRY	School Gardens, Shrewsbury.
A. 1897, Oct. 26 F. 1900, Nov. 12	*BURGESS, HENRY HERBERT PHILIP	"Sunnyside," Uxbridge Road, Acton, W.
1895, Sept. 2	BURKE, HENRY ANTHONY	Drumkeen, Ballinamallard, Co. Fermanagh.
1895, Sept. 2	BURKE, WILLIAM CREAGHE ...	Clonne, Ballinrobe, Co. Mayo.
1890, May 29	BURMESTER, JOHN WILLIAM STANLEY, F.R.I.B.A.	13, Queen Anne's Gate, Westminster, S.W.
1891, Nov. 4	BURNET, FRANK	180, Hope Street, Glasgow.
1890, May 29	BURNETT, ALFRED ANDREW ...	2, High Street, Southampton, Hants.
1881, Dec. 19	BURNETT, DAVID	14, Nicholas Lane, E.C.
1889, May 13	‡BURNETT, GEORGE JOHN MULCASTER, M.A. (*Cantab.*)	Elstree Cottage, Elstree, Herts.
C.F. '96, June 2 F. 1897, June 28	BURNS, GAVIN JAS., B.Sc. (*Lond.*)	Building Works Department, Royal Arsenal, Woolwich.
A. 1900, Oct. 30 F. 1901, Dec. 9	*BURR, HARRY	Estate Office, Letchworth, near Hitchin, Hertfordshire.
A. 1898, Oct. 29 F. 1904, Jun. 28	*BURROUGHES, CHARLES FITZPATRICK	Stoughton Farm, Leicester.
1875, Feb. 1	BURROUGHES, THOMAS HENRY ...	37, Lincoln's Inn Fields, W.C., and 16, Lower Berkeley Street, W.
A. 1886, Dec. 6 F. 1890, Jan. 6	*BURROWS, ALFRED JOHN	41, Bank Street, Ashford, Kent.
1884, Dec. 8	BURTENSHAW, ALBERT...	Hailsham, Sussex.
A. 1898, Oct. 29 F. 1901, July 2	*BURTENSHAW, ALBERT KING ...	Hailsham, Sussex.
A. 1895, Oct. 24 F. 1897, Jan. 11	*BURTON, AMOS, A.M.I.C.E.	Borough Engineer, Town Hall, Stoke-upon-Trent, Staffordshire.
A. 1898, Oct. 29 F. 1902, Sept. 30	*BURTON, REGINALD ROBERT ...	London County Council, Spring Gardens, S.W.
A. 1887, Dec. 19 F. 1891, May 25	*BUSHELL, HENRY	33, New Bridge Street, E.C.
A. 1894, Oct. 30 F. 1899, Nov. 13	*BUTLER, ALBERT ERNEST	20, Blagrave Street, Reading, Berks.
A. 1897, Oct. 26 F. 1900, May 21	*BUTLER, CHARLES	14, Queen Street, Huddersfield, Yorkshire.
1895, Sept. 2	BUTLER, WALTER SELBY	Green Mount, Castle Bellingham, Co. Louth.
1874, Jan. 5	BUZZARD, ALFRED LINDSEY ...	Avondale, Chesterfield Rd., Eastbourne.
1889, Dec. 9	BYRON, AUGUSTUS WILLIAM ...	Bath House, Derby Road, Chesterfield, and 16, Great George Street, S.W.
1891, Nov. 4	CABLE, JAMES M., A.R.I.B.A. ...	56, Ludgate Hill, E.C.

‡ Special Forestry Certificate.

Dip. No.	Date of Election and of Transfer.	FELLOWS.	Address.
1638	1889, Dec. 9	CÆSAR, CHARLES EDWARD... ...	105, Tooley Street, Southwark, S.E.
2185	1891, Nov. 4	CALVERT, ARTHUR RICHARD ...	14, Low Pavement, Nottingham.
1798	1890, May 29	CAMPBELL, HENRY HUNTER ...	444, Produce Exchange, Hanging Dit Manchester, Lancashire.
2942	A. 1895, Oct. 24 F. 1896, Dec. 7	*CAMPBELL, HUGH BRUCE	Cottesbrooke, Northampton.
1377	1887, Mar. 7	CANNING, WILLIAM BROWNE ...	Salisbury, Wilts.
787	A. 1882, Mar. 27 F. 1884, Jan. 14	CARD, HENRY CURTIS	North Street, Lewes, Sussex.
1799	1890, May 29	CAREW, JOHN THEODORE	22, Surrey Street, Strand, W.C.
2659	A. 1894, Oct. 30 F. 1899, Jan. 23	*CARNELL, SYDNEY GEORGE... ...	Estate Office, Condover, Shrewsbury.
800	A. 1882, Apr. 24 F. 1883, Jan. 15	CARPENTER, EVAN GEORGE ...	45, High Street, Croydon, Surrey.
3206	A. 1897, Oct. 26 F. 1898, Oct. 3	*CARPMAEL, HAROLD	Jessel Chambers, 88, Chancery Lane, W
3776	1901, Oct. 29	*CARR, CUTHBERT ELLISON	1, Collingwood St., Newcastle-on-Ty
232	A. 1870, Feb. 7 F. 1880, Nov. 22	CARRITT, ERNEST, A.R.I.B.A. ...	57, Lincoln's Inn Fields, W.C.
2767	1895, Sept. 2	CARROLL, THEODORE FREDERICK	80, South Mall, Cork.
2769	1895, Sept. 2	CARSON, WILLIAM B.	11, Leinster Street, Dublin.
2187	1891, Nov. 4	CARSWELL, WILLIAM	Capesthorne, Chelford, Cheshire.
2943	A. 1895, Oct. 24 F. 1898, Nov. 14	*CARTWRIGHT, ALFRED STOTT ...	Council Office, Wilmslow, Cheshire.
2188	1891, Nov. 4	CARTWRIGHT, JOSHUA, M.I.C.E.	Peel Chambers, Bury, Lancashire.
1991	1891, Mar. 14	CASTELL, CHARLES SMITH	2, Pont Street, Belgrave Square, S.W
1603	1889, Mar. 18	CASTLE, ARTHUR	9, Canterbury Road, Oxford.
1201	A. 1884, May 26 F. 1887, Nov. 14	CASTLE, SYDNEY CHARLES COURTENAY	40, Chancery Lane, W.C., and Neuste Auckland Road, Upper Norwood, S
278	1872, Mar. 11	CASTLE, WILLIAM HENRY BALDWIN	40, Chancery Lane, W.C.
362	1875, Jan. 4	CAVE, HENRY H.	Estate Office, Rugby, Warwickshire.
1480	1888, Apr. 30	CAVE, THOMAS NEWMAN	Horton, Northamptonshire.
1836	1890, Nov. 22	CHALK, HENRY PHILIP	Linton, Cambridgeshire.
3155	A. 1897, Feb. 17 F. 1899, June 26	*CHAMBERLAIN, GEORGE ARTHUR RADDON	Whitegates, Enville, near Stourbri Worcestershire.
2660	A. 1894, Oct. 30 F. 1896, Feb. 17	*CHAMBERS, THEODORE GERVASE	4, Bloomsbury Place, W.C.
2770	1895, Sept. 2	CHAMBRÉ, C. B. M.	Estate Office, Dungannon, Co. Tyron
1061	1884, Jan. 28	CHANCELLOR, ALBERT	1, King Street, Richmond, Surrey, a 51, Pall Mall, S.W.
219	1870, Jan. 10	CHANCELLOR, FRED., F.R.I.B.A.	20, Finsbury Circus, E.C., and Che ford, Essex.
3147	1897, Feb. 17	CHAPMAN, GEORGE JAMES	War Office, Horse Guards, Whitehall,
2189	1891, Nov. 4	CHAPMAN, HENRY JAMES	50, Belgrave Road, S.W.
1800	1890, May 29	CHARLES, RICHARD STAFFORD ...	52, New Broad Street, E.C.
3016	A. 1896, Jan. 21 F. 1901, Nov. 25	*CHART, CHRISTOPHER	Union Bank Chambers, Croydon.
1768	1890, Mar. 24	CHART, ROBERT MASTERS	The Vestry Hall, Mitcham, Surrey.
2190	1891, Nov. 4	CHASEMORE, PHILIP	Ashleigh, Horsham, Sussex.
3362	A. 1898, Oct. 29 F. 1901, Nov. 25	*CHATTELL, FRANCIS LORIOT ...	Lower Camden, Chislehurst, Kent.

Date of Election and of Transfer.	FELLOWS.	Address.
1891, Jan. 17	CHATTELL, DAVID JAMES	29A, Lincoln's Inn Fields, W.C.
1891, Nov. 4	CHATTERTON, GEORGE, M.I.C.E....	6, The Sanctuary, Westminster, S.W.
1895, Sept. 2	CHATTERTON, ROBERT SMITH ...	Belmont, Raheney, Co. Dublin.
A. 1898, Oct. 29 F. 1904, Jun. 28	*CHESTERTON, FRANK SIDNEY ...	51, Cheapside, E.C.
1890, Mar. 10	CHESTERTON, SIDNEY RAWLINS ...	22, Lower Phillimore Place, Kensington, W., and 51, Cheapside, E.C.
1884, Apr. 21	CHESTON, CHESTER	Dashwood House, New Broad Street, E.C.
1891, Mar. 14	CHESTON, HORACE, F.R.I.B.A. ...	5, Union Court, Old Broad Street, E.C.
1891, Nov. 4	CHETWOOD, STEPHEN	Waltham Abbey, Essex.
1891, Nov. 4	CHEW, HENRY VICTOR...	35, Great St. Helen's, E.C.
A. 1899, Oct. 30 F. 1900, Oct. 1	*CHICHESTER, RICHARD HERBERT	Cheswardine, Market Drayton, Salop.
1890, Feb. 24	CHILD, FRED	65 and 66, Chancery Lane, W.C., and 1, Station Road, New Barnet.
1896, Oct. 28	CHILD, HENRY JOHN	Royal Engineer Office, Valetta, Malta.
1868, July 6	CHINNOCK, FREDERICK GEORGE (*Member of Council*)	11, Waterloo Place, S.W.
A. 1884, Feb. 25 F. 1891, June 29	CHRISTY, ARCHIBALD ERNEST ...	12, Great St. Helen's, E.C.
CF.1896, Oct. 28 F. 1904, Apr. 18	CLANCEY, JOHN CHARLES, K.I.H.	Assistant Director of Land Records and Agriculture, New Public Buildings, Rangoon, Burma, India, and 7, Grafton Square, Clapham Common, S.W.
1887, Jan. 10	CLARE, EDWARD LOVELL	37, Park Square, Leeds, Yorkshire, and 33, Friar Lane, Leicester.
1892, Feb. 26	CLARK, JOHN MCCLARE	Haltwhistle & Hexham, Northumberland.
1889, Dec. 9	CLARK, NATHANIEL	Tanfield Hall, Tantobie, R.S.O., Co. Durham.
1882, Jan. 16	CLARK, SAMUEL	8, New Cavendish Street, W.
1882, Jan. 16	CLARKE, ALFRED DUDLEY	Estate Office, Abberley, Stourport, Worcestershire.
1890, May 29	CLARKE, CHRISTOPHER	Charlcot, Bedale, Yorkshire.
A. 1900, Oct. 30 F. 1901, July 2	*CLARKE, ERNEST SEYMOUR ...	2, Lancaster Place, Strand, W.C.
1891, Mar. 14	CLARKE, GEORGE ERNEST	12, Coleman Street, E.C.
A. 1884, Jan. 28 F. 1886, Jan. 11	CLARKE, HOWARD CHATFEILD (*Member of Council*)	63, Bishopsgate Street Within, E.C.
1888, Dec. 10	CLARKE, JOHN WILLIAM	Guisborough, Yorkshire.
A. 1883, Dec. 17 F. 1889, Nov. 11	CLARKE, PERCY HENRY	2, Lancaster Place, W.C.
1891, Jan. 17	CLARKE, STANLEY CHATFEILD ...	202, Bishopsgate Street Without, E.C.
1891, Nov. 4	CLARKSON, JOHN, F.R.I.B.A. ...	Ormond Chambers, 28, Great Ormond Street, W.C.
1890, Nov. 22	CLARKSON, WILLIAM	136, High Street, Poplar, E.
A. 1897, Oct. 26 F. 1900, Oct. 30	*CLARKSON, WILLIAM, JUN.	9 and 10, Fenchurch Street, E.C., and 136, High Street, Poplar, E.
1890, Jan. 6	CLIFTON, JAMES EDWARD, F.R.I.B.A.	Swanage, Dorset.
A. 1884, Mar. 10 F. 1889, Jan. 28	CLIFTON, WILLIAM EDWARD, F.R.I.B.A.	7, East India Avenue, Leadenhall Street, E.C.

Dip. No.	Date of Election and of Transfer.	FELLOWS.	Address.
1310	1886, Mar. 8	CLOUGH-TAYLOR, HORACE GEO. ...	39, Friar Lane, Leicester.
78	A. 1868, July 13 F. 1875, May 10	CLUTTON, JOHN HENRY	9, Whitehall Place, S.W.
61	A. 1868, July 6 F. 1874, Apr. 13	CLUTTON, RALPH	9, Whitehall Place, S.W.
221	A. 1870, Jan. 10 F. 1875, Dec. 13	CLUTTON, RALPH WILLIAM	Hartswood, Reigate, Surrey.
65	1868, July 13	CLUTTON, ROBERT GEORGE	9, Whitehall Place, S.W.
1285	A. 1885, Dec. 7 F. 1894, May 28	*COALES, HERBERT GEORGE, A.M.I.C.E.	Market Harborough Local Board Offic Market Harborough.
713	1882, Jan. 30	COBB, HERBERT MANSFIELD ...	Higham, Kent, and 53, Lincoln's I Fields, W.C.
1885	A. 1890, Nov. 22 F. 1894, Apr. 16	*COBHAM, GEORGE WILLIAM ...	1 & 3, Edwin Street, Gravesend, Ken
3661	A. 1900, Oct. 30 F. 1901, July 2	*COCHRANE, WILLIAM JAMES ...	15, Thornhill Terrace, Sunderla Durham.
2196	1891, Nov. 4	COCKS, SAMUEL ROGER	5, St. Thomas' Street, Ryde, Isle Wight.
3059	1896, Oct. 28	COLEMAN, THOMAS EVERIT... ...	Royal Engineer Office, Milldam Barra Portsmouth, Hants.
1839	1890, Nov. 22	COLES, SAMUEL HOOD COWPER ...	Penmyarth, Crickhowell, S. Wales.
769	A. 1882, Feb. 27 F. 1884, Feb. 11	COLGATE, THOMAS...	Sheffield Park, Uckfield, Sussex.
2197	1891, Nov. 4	COLLIER, WALTER HENRY	130, Strand, W.C.
1414	A. 1887, Dec. 19 F. 1891, Feb. 2	COLLINGHAM, JOHN CYRIL LEES	6, Mount Street, W.
119	1868, Aug. 17	COLLINS, HENRY HYMAN, F.R.I.B.A.	61, Old Broad Street, E.C.
826	A. 1882, Dec. 4 F. 1891, Jan. 19	COLLINS, MARCUS E.	61, Old Broad Street, E.C.
1925	1891, Jan. 17	COLYER, FREDERICK, M.I.C.E. ...	41, Old Queen Street, S.W.
3186	1897, Oct. 26	COMBER, PATRICK FORSTALL, M.I.C.E.	19, Lower Leeson Street, Dublin.
1501	1888, Nov. 26	COMBES, CYRUS	Tisbury, Wilts, and Misterton, Cr kerne, Somerset.
2062	1891, May 23	COMMIN, FREDERICK JAMES ...	1, Victoria Street, S.W.
1926	1891, Jan. 17	CONDER, ALFRED, F.R.I.B.A. ...	Palace Chambers, 9, Bridge Street, S
3174	1897, Oct. 26	CONNOR, GEORGE HARRY ADAMS	Estates Office, Longniddry, N.B.
1564	1889, Jan. 28	COOKE, HENRY	25, Watts Avenue, Rochester, Kent.
3947	1902, Oct. 28	*COOPE, SAMUEL	24, Mawdsley Street, Bolton, Lancash
3948	1902, Oct. 28	*COOPER, ARTHUR JOHN	R. E. Reconstruction Office, Newbri Barracks, Newbridge, Co. Kildare
1172	1884, May 19	COOPER, ARTHUR LESLIE	17, Friar Street, Reading, Berks.
715	1882, Jan. 30	COOPER, JOHN GROVES...	Bideford, Devon.
1927	1891, Jan. 17	COOPER, JOHN ROBERT...	35, Old Jewry, E.C., and Queen's Lo West End Lane, West Hampstead, N
2773	1895, Sept. 2	COOTE, ORLANDO ROBERT	Auburn, Athlone, Co. Westmeath.
2772	1895, Sept. 2	COOTE, STANLEY VICTOR, M.A. (*Oxon.*)	The Orchard House, Wargrave, Berk Carrowroe Pk., Roscommon, Irela
1966	A. 1891, Jan. 17 F. 1895, Jan. 21	*COPE, HENRY JAMES	Adelphi Chambers, 7, John Str Strand, W.C.

Date of Election and of Transfer.	FELLOWS.	Address.
1891, Nov. 4	COPLAND, WILLIAM ROBERTSON, M.I.C.E.	146, West Regent Street, Glasgow.
1889, Mar. 4	CORBETT, EDWIN WORTLEY MONTAGU	Bute Estate Office, Castle St., Cardiff.
1891, Nov. 4	CORBY, JOSEPH BOOTHROYD ...	15, All Saints' Place. Stamford, Lincolnshire.
A. 1891, Nov. 4 F. 1892, May 30	*CORDEROY, ATHELSTANE	12, George Street, Plymouth, Devon, & 21, Queen Anne's Gate, S.W.
1889, Feb. 25	CORDEROY, GEORGE	21, Queen Anne's Gate, S.W.
1895, Sept. 2	CORDNER, CLEMENT KENNEDY ...	Estate Office, Antrim, Ireland.
A. 1896, Oct. 28 F. 1903, Sept. 28	*CORY, EDWARD JOHN, CAPTAIN	High Street, Rye, Sussex.
1898, Oct. 29	*COTTERELL, ALBERT PLAYER ISAAC	Scottish Buildings, 28, Baldwin Street, Bristol.
A. 1883, Apr. 16 F. 1889, Nov. 11	COUCHMAN, HENRY BOTELER ...	Moor Park Estate Office, Rickmansworth, Herts.
1883, Apr. 30	COUCHMAN, ROBERT EDWARD ...	35, Paradise Street, Birmingham.
1880, Jan. 5	COVERDALE, FREDERICK JOHN ...	Ingatestone Hall, Essex.
1882, Feb. 13	COVERDALE, HENRY	The Duke of Norfolk's Estates' Office, Sheffield, Yorkshire.
1890, Nov. 22	COWGILL, BRIAN BOLLANS HIRD...	13A, Piece Hall Yard, Bradford.
A. 1897, Oct. 26 F. 1900, Nov. 12	*COWPER, WILLIAM SHAPLAND ...	81, High Street, Sittingbourne, Kent.
1890, Feb. 24	COX, EDWARD SAMUEL...	3, New Street, York.
A. 1896, Oct. 28 F. 1903, May 21	*COX, WALTER THEODORE	Grasmere, Tovil, Maidstone, Kent.
A. 1899, Oct. 30 F. 1905, Sept. 28	*CRAMPTON, ARTHUR WESLEY ...	The Park, Mansfield, Nottinghamshire.
1891, Nov. 4	CRANFIELD, WILLIAM BATHGATE	6, Poultry, E.C.
1869, Jan. 25	CRAWTER, JOHN	Cheshunt, Herts.
A. 1883, May 25 F. 1888, Nov. 26	CRAWTER, JOHN, JUN.	Cheshunt, Herts.
1896, Jan. 21	CREAGH, ARTHUR GETHIN	Mallow, Co. Cork.
A. 1897, Oct. 26 F. 1899, May 29	*CRESWELL, WILLIAM THOMAS ...	11, Victoria Street, S.W.
1869, Jan. 25	CRICKMAY, GEORGE RACKSTROW, F.R.I.B.A.	13, Victoria St., S.W., and St. Thomas Street, Weymouth, Dorset.
1889, Dec. 9	CRICKMAY, JOHN EDWARD	Weymouth, Dorset.
A. 1891, Nov. 4 F. 1896, Jan. 6	*CRIER, JOHN THOMAS	12, Hoveden Road, Cricklewood, N.W.
1891, Nov. 4	CROCKETT, EDWIN ARTHUR BRASSEY	Bush Lane House, Cannon Street, E.C.
A. 1881, Feb. 7 F. 1890, Feb. 24	CROFTS, EWAN NEVILE...	Caythorpe, Grantham, Lincolnshire.
A. 1898, Feb. 18 F. 1902, July 14	*CRONK, CHARLES TYLEE	Sevenoaks, Kent.
1882, Feb. 13	CRONK, EDWYN EVANS	12, Pall Mall, S.W., & Sevenoaks, Kent.
1882, Feb. 13	CRONK, FRANK	12, Pall Mall, S.W., & Sevenoaks, Kent.
1883, Jan. 29	CRONK, WILLIAM HENRY	Sevenoaks, Kent.
1895, Sept. 2	CROSBIE, JAMES DAYROLLES ...	Gurtenard, Listowel, Co. Kerry.
A. 1891, May 23 F. 1898, May 16	*CROSS, ARNOLD CHARLES MARTIN	9, Victoria Street, S.W.

Dip. No.	Date of Election and of Transfer.	FELLOWS.	Address.
4124	1903, Oct. 28	*CROSS, ARTHUR GEORGE	17, Old Queen Street, S.W.
1754	1890, Mar. 10	CROSS, WILLIAM HASLAM	77, King Street, Manchester.
1548	A. 1889, Jan. 4 F. 1904, Jun. 28	*CROUCH, JAMES LEONARD ...	29, Basinghall Street, E.C.
2947	A. 1895, Oct. 24 F. 1899, Oct. 2	*CROWTHER, KESTON NELSON ...	"Glenthorne," 70, Nightingale La Wandsworth Common, S.W.
2208	1891, Nov. 4	CRUWYS, ROBERT...	51, Upper Tulse Hill, S.W.
3175	1897, Oct. 26	CULLEN, ALEXANDER	Brandon Chambers, Hamilton, N.B.
3368	A. 1898, Oct. 29 F. 1899, Dec. 11	*CULVERHOUSE, CECIL GOLDAR FEARN	9, Whitehall Place, S.W.
1928	1891, Jan. 17	CUMBERLAND, EDWARD ANTHONY	Luton and Leighton Buzzard, Bedfo shire.
3458	1899, Feb. 16	CUNNINGHAM, ROBERT...	Branxholme, Hawick, Roxburghsh N.B.
1565	1889, Jan 28	CURRY, PERCIVALL, F.R.I.B.A. (*Honorary Secretary*)	37, Norfolk Street, W.C.
1381	1887, Mar. 21	CURRY, HENRY JOHN	58, High Street, Stockton-on-T Durham.
581	1880, Dec. 13	CURTIS, CHARLES EDWARD... ...	Woodlands, Brockenhurst, Hants.
483	1877, Apr. 16	CURTIS, ROBERT LEABON	119 and 120, London Wall, E.C.
3529	A. 1899, Oct. 30 F. 1903, Nov. 9	*CUTLER, GEORGE ALFRED	8, Bruton Street, Berkeley Square, W
2209	1891, Nov. 4	CUXSON, GEORGE AUSTIN PRYCE, A.R.I.B.A.	5, Duke Street, Adelphi, W.C., and M House, Chislehurst Common, Kent.
3218	A. 1897, Oct. 26 F. 1901, Feb. 11	*DANGERFIELD, THOMAS SAMUEL	19 and 20, Holborn Viaduct, E.C.
732	1882, Feb. 13	DANN, HENRY...	Dartford, Kent.
3531	A. 1899, Oct. 30 F. 1903, Nov. 9	*DANN, HENRY, JUN.	Shears Green, Near Gravesend, Kent
3293	1898, Feb. 18	DANSKEN, ALEXANDER BROWN ...	109, St. Vincent Street, Glasgow.
2210	1891, Nov 4	DANSKEN, JOHN	241, West George Street, Glasgow.
1666	A. 1889, Dec. 9 F. 1891, Apr. 6	*DARCH, JOHN	55, West Side, Wandsworth Comm S.W.
2778	1895, Sept. 2	DARLEY, EDMUND SANDERS... ...	5, College Green, Dublin.
2777	1895, Sept. 2	DARLEY, HENRY PONSONBY SHAW	Estate Office, Carrick-on-Shannon, Leitrim.
907	A. 1883, Feb. 26 F. 1891, May 25	DASH, ROLAND ASHFORD	9, Whitehall Place, S.W., and Oxsh Surrey.
3669	A. 1900, Oct. 30 F. 1901, July 2	*DAUBNEY, CHARLES ARCHIBALD, A.R.I.B.A.	124, Fordel Road, Hither Green, S.E
1527	A. 1888, Dec. 10 F. 1892, July 4	*DAVEY, HENRY THOMAS	Cumberland Villa, St. Anne's, Le Sussex.
848	A. 1882, Dec. 18 F. 1890, Nov. 10	DAVID, EDMUND USSHER	Old Bank Chambers, 27, High St., Ca Glamorganshire.
3460	1899, Feb. 16	DAVIDSON, CHARLES	Terrace Buildings, Paisley, Renf shire.
3176	1897, Oct. 26	DAVIDSON, JAMES INGLIS	Sangton Mains, Edinburgh, & 175, W George Street, Glasgow.

Date of Election and of Transfer.	FELLOWS.	Address.
A. 1893, Oct. 4 F. 1896, Mar. 2	*DAVIES, CYRIL FROODVALE... ...	10, Spilman Street, Carmarthen.
A. 1892, Nov. 28 F. 1894, Oct. 10	*DAVIES, DAVID THOMAS	11, Serle Street, Lincoln's Inn, W.C.
1888, Dec. 10	DAVIES, GEORGE HUMPHREYS ...	8, Laurence Pountney Hill, E.C.
1873, Feb. 10	DAVIES, JOHN MORGAN	Froodvale, Llanwrda, South Wales.
1891, Nov. 4	DAVIS, ALFRED THOMAS, A.M.I.C.E.	Shirehall, Shrewsbury, Shropshire.
1891, Mar. 14	DAVIS, CHARLES EDWARD, B.A. (*London*)	Wroxton Estate Office, near Banbury, Oxon.
A. 1882, Mar. 13 F. 1889, Nov. 11	DAVIS, CHARLES JAMES	32, Strand, W.C.
1883, Feb. 26	DAW, WILLIAM HERBERT	6, Ironmonger Lane, E.C.
A. 1898, Oct. 29 F. 1900, Oct. 1	*DAWSON, GEORGE CROSBIE... ...	Daisyfield, Nuneaton, Warwickshire.
1891, Nov. 4	DAWSON, PERCY JOHN	Mount Sandford, Reigate, Surrey.
1889, Dec. 9	DAY, GEORGE CARLETON	Estate Office, Woodbridge, Shaftesbury, Dorset.
A. 1883, Dec. 17 F. 1887, Nov. 14	*DAY, WILLIAM, JUN., ...	23, High Street, Maidstone, Kent.
1882, Jan. 16	DEACON, THOMAS MARK	32, Craven Street, Charing Cross, S.W.
1895, Sept. 2	DEANE, GEORGE B.	Liskilleen, Ballinrobe, Co. Mayo.
A. 1892, Nov. 28 F. 1893, Aug. 9	*DEBENHAM, FRANK BRIDGEWATER	80, Cheapside, E.C.
1888, Jan. 23	DEBENHAM, FRANK GISSING ...	Cheshunt Park, Herts, & 80, Cheapside, E.C.
A. 1893, Oct. 4 F. 1899, Jan. 23	*DEBENHAM, FREDERIC KERSEY ...	80, Cheapside, E.C.
A. 1891, May 23 F. 1893, Aug. 9	*DEBENHAM, HORACE BENTLEY ...	80, Cheapside, E.C.
1891, Nov. 4	DEER, EDWARD	Stratford-on-Avon, Warwickshire.
A. 1899, Oct. 30 F. 1903, Mar. 9	*DELVES, ROBERT HARVEY ADDINGTON	City of Bombay Improvement Trust, Bombay.
A. 1883, Dec. 17 F. 1891, Oct. 15	DEMETRIADI, THOMAS MARSDEN	28, John William Street, Huddersfield.
A. 1889, Dec. 9 F. 1894, Jan. 22	*DENDY, WILLIAM COOPER	Surveyor's Department, Town Hall, Kennington Green, S.E.
1891, Jan. 17	DENNISON, JOHN W., F.R.I.B.A....	28, Upperton Gardens, Eastbourne, Sussex.
1895, Sept. 2	DENNY, FRANCIS McGILLYCUDDY	17, Denny Street, Tralee, Co. Kerry.
A. 1897, Oct. 26 F. 1903, May 18	*DENTON, WILLIAM	Montgomery Chambers, Hartshead, Sheffield, Yorkshire.
1882, Feb. 27	DEW, WILLIAM ARTHUR	Wellfield House, Bangor, Carnarvonshire.
1895, Sept. 2	DICKINSON, CHARLES, B.A. (*Dublin*)	36, South Frederick Street, Dublin.
A. 1884, Dec. 8 F. 1885, May 18	*DICKSON, THOMAS ARTHUR... ...	Estate Office, Overstone Park, Northampton.
A. 1894, Oct. 30 F. 1897, May 10	*DINWIDDY, DONALD	54, Parliament Street, S.W., and Greenwich, S.E.
1883, Feb. 12	DINWIDDY, THOMAS, F.R.I.B.A. ...	54, Parliament Street, S.W., and Greenwich, S.E.
A. 1869, Feb. 8 F. 1878, Feb. 25	DODGSON, WILFRED LONGLEY ...	5, Mill Street, Ludlow, Shropshire.

Dip. No.	Date of Election and of Transfer.	FELLOWS.	Address.
1136	1884, Apr. 21	DOLL, CHARLES FITZROY, F.R.I.B.A.	5, Southampton Street, Bloomsb W.C.
2217	1891, Nov. 4	DOLLAR, PETER, A.R.I.B.A.... ...	Clock House, Arundel St., Strand, W
1415	A. 1887, Dec. 19 F. 1891, Dec. 7	*DONE, JOHN JAMES	Cricklewood, N.W.
1250	1885, Feb. 9	DONNE, HENRY	The Abbey Ruins, Bury St. Edmun Suffolk.
2218	1891, Nov. 4	DORNING, ARTHUR HARRY	41, John Dalton Street, Manchester.
493	1878, Jan. 14	DOWNING, FREDERICK	12, King's Bench Walk, Temple, E.C.
1997	1891, Mar. 14	DOWNING, HENRY PHILIP BURKE, F.R.I.B.A.	Avalon, Wilton Rd., Merton, Surrey 12, Little College Street, S.W.
2219	1891, Nov. 4	DOWSETT, CHARLES FINCH	Winklebury, Basingstoke, Hampshir
817	A. 1882, May 22 F. 1884, May 19	DRAPER, ARTHUR THOMAS... ...	Friar Lane, Leicester.
3089	A. 1896, Oct. 28 F. 1903, Sept. 28	*DRAPER, EDWIN MAXWELL ...	3, Bucklersbury, E.C.
1348	1887, Jan. 10	DRAY, ALFRED	Town Hall Chambers, Hastings, Suss
301	1873, Feb. 10	DREW, HENRY	15, Queen Street, Exeter, Devon.
1336	A. 1886, Dec. 6 F. 1888, Nov. 12	*DREW, HENRY ALBAN	15, Queen Street, Exeter, Devon.
1095	A. 1884, Feb. 11 F. 1889, Jan. 14	DREW, JOHN GOULD, B.A. (*Oxon*) (*Member of Council*)	15, Queen Street, Exeter, Devon.
2220	1891, Nov. 4	DREWEATT, THOMAS	Newbury, Berkshire.
3984	A. 1902, Oct. 28 F. 1903, Nov. 9	*DRIVER, ARTHUR CHARLES ...	23, Pall Mall, S.W.
419	A. 1876, Jan. 10 F. 1878, Feb. 25	DRIVER, CHARLES WILLIAM ...	St. Andrew's Lodge, Dean Road, Will den Green, N.W.
582	1880, Dec. 13	DRIVER, ROBERT MANNING ...	23, Pall Mall, S.W.
684	1882, Jan. 16	DRURY, EDWARD DRU, F.R.I.B.A.	25, Queen Anne's Gate, S.W.
1692	A. 1890, Jan. 6 F. 1893, Dec. 4	*DUDLEY, EDGAR	Bedford House, 24, Bedford St., Plymou Devon.
1802	1890, May 29	DUKE, EDWARD	Dorchester, Dorset.
1803	1890, May 29	DUKE, FREKE GUY RASHLEIGH ...	Brachead, Kilmarnock, Ayrshire.
2064	1891, May 23	DUKE, HENRY	Dorchester, Dorset.
1779	1890, Apr. 14	DUNCALFE, HENRY GEORGE ...	81, Darlington Street, Wolverhamp Staffordshire.
2221	1891, Nov. 4	DUNCAN, JAMES MORISON	40 & 42, Queen Victoria Street, E.C.
3536	A. 1899, Oct. 30 F. 1900, Oct. 1	*DUNLOP, DUGDALE OAKELEY ...	57, King Street, Manchester.
1931	1891, Jan. 17	DUNN, WILLIAM HENRY	11, St. Helen's Place, E.C.
3674	A. 1900, Oct. 30 F. 1901, Nov. 25	*DUNSTALL, HERBERT HENRY, A.R.I.B.A.	Bank Chambers, Railway Street, C ham, Kent.
3148	1897, Feb. 17	DURLACHER, ALEXANDER PERCY, A.M.I.C.E.	33, New Bridge Street, Blackfriars,
1932	1891, Jan. 17	DUVALL, JOHN WILLIAM	The Grange, Ware, Herts.
2222	1891, Nov. 4	DYBALL, HARVEY	35, Bucklersbury, E.C.
792	1882, Apr. 24	DYER, WILLIAM JOHN	Montpelier Row, Blackheath, S.E.
3371	A. 1898, Oct. 29 F. 1901, Jun. 28	*DYER, FREDERICK BURFIELD ...	2, St. Andrew's Place, Lewes, Susse
36	1868, June 15	DYMOND, FRANCIS WILLIAMS ...	21, Southernhay West, Exeter, Devo

Date of Election and of Transfer.	FELLOWS.	Address.
1885, Feb. 9	EADE, ARTHUR W. F., M.A. (*Cantab.*)	Branson House, Darlington, Durham.
1889, Feb. 25	EAGLE, WILLIAM	Westminster Buildings, 37, Brown Street, Manchester.
1889, Feb. 25	EAMES, EDWARD	Compton, Winchester, Hants.
1891, Nov. 4	EARLE, THOMAS ALGERNON ...	90, King Street, Manchester.
1891, Nov. 4	EARNSHAW, JACOB	78, King Street, Manchester.
A. 1893, Oct. 4 F. 1897, Feb. 8	*EASON, EDWARD WILLIAM	43, Bishopsgate Street Without, E.C.
A. 1896, Oct. 28 F. 1900, June 27	*EASTER, WILLIAM...	Wiggenhall St. German, King's Lynn, Norfolk.
1891, Mar. 14	EAYRS, JOHN THOS., M.I.C.E. ..	Clarence Chambers, Corporation Street, Birmingham.
1895, Sept. 2	EDGEWORTH, THOS. NEWCOMEN...	Kilshrewly, Edgeworthstown, Co. Longford.
A. 1893, Oct. 4 F. 1896, Jan. 6	*EDMONDS, JOHN	Drayton Estate Office, Islip, Thrapston, Northamptonshire.
1891, Nov. 4	EDWARDS, ARTHUR PHIPPEN ...	Hutton, near Weston-Super-Mare, Somerset.
1881, Dec. 19	EGERTON, HUBERT DECIMUS ...	29, Fleet Street, E.C.
1883, Dec. 17	EGGAR, JAMES ALFRED	9, West Street, Farnham, Surrey.
A. 1895, Oct. 24 F. 1896, Nov. 9	*EGGINTON, DENYS	150, Friar Street, Reading, Berks.
1884, May 19	EGGINTON, JOHN	150, Friar Street, Reading, Berks.
A. 1879, Jan. 20 F. 1883, Dec. 3	EILOART, FREDERICK EDWARD ...	40, Chancery Lane, W.C.
1889, Nov. 25	ELDRIDGE, HERBERT	3, Bucklersbury, E.C.
1891, Nov. 4	ELFORD, JOHN	King Street, Poole, Dorset.
1888, Jan. 9	ELGAR, J. EDWARD	Crockshard, Wingham, Kent.
A. 1890, Nov. 22 F. 1892, Feb. 1	ELGOOD, FRANK MINSHULL, A.R.I.B.A.	98, Wimpole Street, W.
A. 1896, Oct. 28 F. 1904, Jun. 28	*ELPHICK, GEORGE PELHAM... ...	Foregate Street, Chester.
1887, Dec. 19	ELLEN, FREDERICK CHARLES ...	The Auction Mart, Andover, Hants.
1884, Jan. 14	ELLIOTT, CHARLES...	16, Ermington Terrace, Plymouth, Devon.
A. 1892, Nov. 28 F. 1896, Mar. 2	*ELLIS, ALBERT EDWARD	Bedford Chambers, Exeter, Devon.
A. 1897, Oct. 26 F. 1901, Nov. 25	*ELLIS, ALFRED CAVE	57, Chancery Lane, W.C.
A. 1898, Oct. 29 F. 1902, Jan. 27	*ELLIS, ARNOLD ROBERTSON ...	College Street, Gloucester.
1895, Sept. 2	ELLIS, ERNEST FRANCIS LESLIE...	Estate Office, Bantry, Co. Cork.
A. 1889, Mar. 15 F. 1897, Nov. 14	ELLIS, ERNEST HAROLD	Town Hall Chambers, Guildford, Surrey.
A. 1890, Nov. 22 F. 1894, May 28	*ELLIS, FRANCIS	Trafford Park, Patricroft, near Manchester.
1891, May 23	ELLIS, FREDERICK...	141, Inverness Terrace, W.
A. 1888, Dec. 10 F. 1890, May 12	*ELLIS, HERBERT MOATES	9, Walbrook, E.C.

Dip. No.	Date of Election and of Transfer.	FELLOWS.	Address.
1365	A. 1887, Jan. 24 F. 1891, Feb. 16	*ELLIS, RALPH STAPLES...	29, Fleet Street, E.C.
885	1883, Feb. 12	ELLIS, RICHARD ADAM	45, Fenchurch Street, E.C.
3060	1896, Oct. 28	ELTON, HERBERT AVERILL	Building Works Department, Ro Arsenal, Woolwich, Kent.
667	A. 1881, Dec. 19 F. 1890, Dec. 8	ELWELL, WILLIAM HENRY	Howard House, 4, Arundel Stre Strand, W.C.
3305	1898, Feb. 18	EMERY, ARTHUR JAMES	Horse Guards, Whitehall, S.W.
2230	1891, Nov. 4	EVANS, ARTHUR OWEN	Town Hall, Pontypridd, Glamorganshi
1936	1891, Jan. 17	EVANS, GEORGE	24, Hazlitt Road, West Kensington, W
898	1883, Feb. 26	EVANS, ROBERT, F.R.I.B.A.... ...	Eldon Chambers, Wheeler Ga Nottingham.
2231	1891, Nov. 4	EVANS, WALTER PEARSON	Emscote House, Leamington, Warwi shire.
2232	1891, Nov. 4	EVANS, WILLIAM, A.M.I.C.E. ...	New Walk, Beverley, Yorkshire.
2786	1895, Sept. 2	EVANS, WILLIAM	Gillardstown House, Killucan, Westmeath.
338	A. 1874, Feb. 16 F. 1876, Nov. 27	EVANS, WILLIAM ERNEST	School Gardens, Shrewsbury, Shropshi
2000	1891, Mar. 14	EVANS-VAUGHAN, HENRY	Glen Dale, Surrey Road, Bournemou Hants.
2664	A. 1894, Oct. 30 F. 1901, Feb. 11	*EVE, CHARLES GERALD	Kitley Estate Office, Yealmpton, n Plymouth, Devon.
1416	A. 1887, Dec. 19 F. 1891, May 25	*EVE, HERBERT TRUSTRAM	2, St. Paul's Square, Bedford.
104	1868, Aug. 3	EVE, WILLIAM	10, Union Court, Old Broad Street, E
3503	1899, Oct. 30	*EVE, WILLIAM HAROLD	10, Union Court, E.C.
1382	1887, Mar. 21	EVERARD, JOHN BREEDON, M.I.C.E., F.R.I.B.A.	6, Millstone Lane, Leicester.
2665	A. 1894, Oct. 30 F. 1900, Nov. 12	*EVERINGTON, JOHN	114, Queen Victoria Street, E.C., Forster Estate Office, 33, Culve Road, Catford, Kent.
2666	A. 1894, Oct. 30 F. 1895, Nov. 25	*EVES, FRANCIS GEORGE BERTRAM	54, High Street, Uxbridge, Middlese
1549	A. 1889, Jan. 14 F. 1892, Nov. 14	*EVES, WILLIAM LIONEL	54, High Street, Uxbridge, Middlese
3777	1901, Oct. 29	*EWING, GUY BEAUMONT	Cole Allen, Edenbridge, Kent.
3092	A. 1896, Oct. 28 F. 1901, Nov. 25	*FAIR, ARTHUR EDWARD	Estate Office, Haigh Hall, Wigan, cashire.
1510	1888, Dec. 10	FAIR, JAMES STRETTON	Estate Offices, Lytham, and 4, Win Street, Preston, Lancashire.

Date of Election and of Transfer.	FELLOWS.	Address.
1884, May 19	FAIR, THOMAS	Clifton Hall, near Preston, Lancashire.
1891, Jan. 17	FAIRCLOUGH, WILLIAM	Leigh, Lancashire, and 60, King Street, Manchester.
1890, Mar. 10	FALCON, MICHAEL...	Horstead House, Norfolk.
1884, Jan. 28	FARMER, EDMUND	80, Cheapside, E.C.
A. 1895, Oct. 24 F. 1899, Oct. 2	*FARMER, HUGH CECIL...	9, Whitehall Place, S.W.
1891, Nov. 4	FARNAN, HENRY RICHARD... ...	79, Coleman Street, E.C.
1890, Mar. 10	FARRAR, SIDNEY HOWARD M.I.C.E.	54, Old Broad Street, E.C., and Port Elizabeth, Johannesburg, S. Africa.
1896, Sept. 2	FARRELL, EDWARD FRANCIS ...	Moynalty, Kells, Co. Meath.
1891, Mar. 14	FARRER, JOHN ... ... (*Member of Council*)	Oulton, near Leeds, Yorkshire.
1891, Nov. 4	FARTHING, WALTER THOMAS ...	46, Strand, W.C.
1891, Jan. 17	FARWELL, FREDERICK GEORGE ...	11, Laura Place, Bath, Somersetshire.
1896, Oct. 28	FAWCETT, JOHN MORTIMER ...	26, Albion Street, Leeds, Yorkshire.
1884, Jan. 14	FAYERMAN, GEORGE METCALFE ...	88, The Parade, Leamington, Warwickshire.
1895, Oct. 24	*FENN, ANDREW THOMAS CRANAGE	The Lodge, Bromfield, Shropshire.
1887, Dec. 19	FENN, JOHN	The Hall, Ardleigh, and 146, High Street, Colchester, Essex.
1890, Feb. 10	FENN, THOMAS	Downton Castle, Ludlow, Shropshire.
A. 1890, Jan. 19 F. 1897, Apr. 18	FENNING, HERBERT SAMUEL ...	Fairfield, Ashburnham Road, Bedford.
1891, Mar. 14	FENWICK, THOMAS, M.I.C.E. ...	Leeds, Yorkshire.
1884, Nov. 12	FERRIS, GEORGE	Milton Manor, Pewsey, Wilts.
1895, Sept. 2	FETHERSTONHAUGH, THEODORE ...	Grouse Lodge, Moate, Co. Westmeath.
1882, Dec. 18	FIDDIAN, WILLIAM...	Old Bank Offices, Stourbridge, Worcestershire.
1873, Jan. 27	FIELD, FRANCIS HAYWARD	11, King Edward Street, Oxford.
1895, Oct. 24	*FIELDS-CLARKE, GEORGE THOMAS	Estate Office, Southill Park, Biggleswade, Beds.
1891, Nov. 4	FINN, ADOLPHUS	High Street, Lydd, Kent.
A. 1892, Nov. 28 F. 1896, May 11	*FINN, FRED., JUN.	Queen Street, Deal, Kent.
A. 1891, Nov. 4 F. 1894, Oct. 10	*FINN, HERBERT ARCHIBALD ...	Egham, Surrey.
A. 1885, Apr. 16 F. 1889, Jan. 14	FISHER, CHARLES BROWNING ...	Hill Crest, Market Harborough, Leicestershire.
A. 1893, Oct. 4 F. 1896, Mar. 2	*FITT, HARRY CHARLES	42, Arlington Road, Ealing, W.
1886, Jan. 21	FITZGERALD, JAS. H. B. PENROSE	The Estate Office, Middleton, Co. Cork.
1895, Sept. 2	FITZGERALD, PETER DAVID ...	Estate Office, Adare, Co. Limerick.
1895, Sept. 2	FITZGERALD, ROBERT JOHN ...	Ballyard House, Tralee, Co. Kerry.
1899, Oct. 30	*FLETCHER, BANISTER FLIGHT, F.R.I.B.A.	29, New Bridge Street, E.C.

Mp. No.	Date of Election and of Transfer.	FELLOWS.	Address.
582	A. 1893, Oct. 4 F. 1897, June 28	*FLETCHER, HERBERT PHILLIPS, F.R.I.B.A., A.M.I.C.E.	29, New Bridge St., Ludgate Circus, E.C
465	1888, Mar. 5	FLETCHER, THOMAS	Estate Office, Dunkenhalgh, Clayton-le Moors, near Accrington, & 46, Fishe gate, Preston, Lancashire.
749	A. 1882, Feb. 13 F. 1891, June 29	FLINT, WILLIAM HURST	11, Searle St., Lincoln's Inn Fields, W.C
734	1890, Feb. 24	FODEN, EDWARD ANTROBUS ...	Teddesley Estate Office, Penkridg Staffs.
794	1895, Sept. 2	FORBES, ARTHUR	Earls Vale, Cavan, Ireland.
067	1891, May 23	FORBES, CHARLES MANSFELDT ...	14, New Street, York.
238	1891, Nov. 4	FORD, LAWTON ROBERT	118, High Street, Wandsworth, S.W.
518	A. 1892, Nov. 28 F. 1895, May 13	*FORD, SOLOMON, A.R.I.B.A. ...	3, South Square, Gray's Inn, W.C.
640	1881, Dec. 19	FORREST, ROBERT	Windsor Estate Office, St. Fagans, ne Cardiff.
551	1879, Dec. 8	FORSHAW, EDWARD	Hanley, Staffordshire, and Springfiel Stramshall, Uttoxeter, Staffordshire
1039	1884, Jan. 14	FOSBERY, WILLIAM THOMAS EXHAM...	Warwick.
279	1872, Mar. 11	FOSTER, CHARLES ROLLS	54, Pall Mall, S.W.
1531	A. 1888, Dec. 10 F. 1892, Oct. 12	*†FOSTER, FRANK, A.R.I.B.A. ...	8, Duke Street, Adelphi, W.C.
2519	A. 1892, Nov. 28 F. 1895, Nov. 1	*FOSTER, JAMES HERBERT FURMEDGE...	8, Craig's Court, Charing Cross, S.W.
687	1882, Jan. 16	FOULKES, SEPTIMUS GIFFORD ...	Tring, Herts.
3187	1897, Oct. 26	FOWLER, ALFRED MOUNTAIN, M.I.C.E.	1, St. Peter's Square, Manchester.
686	1882, Jan. 16	FOWLER, FREDERICK	St. James' Street, Sheffield, Yorkshir
1806	1890, May 29	FOWLER, GERARD EDMUND... ...	Colmore House, 21, Waterloo Stre Birmingham.
1807	1890, May 29	FOWLER, HENRY	198, Old Street, E.C., and Colton Hou Clifton Road, Rugby, Warwickshir
632	1882, Dec. 18	FOWLER, HENRY	6, Waterloo Street, Birmingham.
1780	1890, Apr. 14	FOWLER, REGINALD WILLIAM ...	3, Hartshead, Sheffield, Yorkshire.
1403	1887, Dec. 19	FOWLER, RICHARD	118, Colmore Row, Birmingham.
1605	1889, Mar. 18	FOWLER, SYDNEY, A.R.I.B.A. ...	9, Craig's Court, Charing Cross, S.W
2240	1891, Nov. 4	FOWLER, WILLIAM	69, Temple Row, Birmingham.
2241	1891, Nov. 4	FOX, CHARLES JAMES	7, Rawson Street, Halifax, Yorkshire
1815	1890, Nov. 22	FOX, EDWIN	99, Gresham Street, E.C.
3680	A. 1900, Oct. 30 F. 1902, Dec. 8	*FOX, ERNEST	15, Holdenhurst Road, Bournemou Hampshire.
2669	A. 1894, Oct. 30 F. 1899, Oct. 2	*FOX, FREDERICK RUSSELL	The Imperial Hotel, Barnstaple, Dev
3681	A. 1900, Oct. 30 F. 1904, Jan. 25	*FOX, WILLIAM	15, Holdenhurst Road, Bournemou Hampshire.
2422	1891, Nov. 4	FRAMPTON, ALFRED, A.R.I.B.A.	62 and 63, Basinghall Street, E.C.
2243	1891, Nov. 4	FRANCE, ARTHUR ALDERSON ...	99, Swan Arcade, Bradford, Yorkshi

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Reg. No.	Date of Election and of Transfer.	FELLOWS.	Address.
1345	1889, Jan. 14	FRANCIS, GEORGE FUTVOYE ...	Eaton Chambers, Buckingham Palac Road, S.W.
1700	1890, Mar. 10	FRANCIS, LEON ALBERT	8, John Street, Adelphi, W.C.
1808	1890, May 29	FRANKLIN, ARTHUR THOMAS ...	25, Ludgate Hill, E.C.
2457	A. 1891, Nov. 4 F. 1895, Feb. 18	*FRANKLIN, BENJAMIN BELGROVE	21, Market Hill, Luton, Beds.
2792	1895, Sept. 2	FRANKS, MATTHEW HENRY ...	Westfield, Mountrath, Queen's County
2793	1895, Sept. 2	FRANKS, MATTHEW HENRY, JUN.	Westfield, Mountrath, Queen's County
2015	A. 1896, Jan. 21 F. 1897, June 28	*FRASER, THOMAS SMELLIE... ...	209, St. Vincent Street, Glasgow.
1967	A. 1891, Jan. 17 F. 1894, Dec. 10	*FRASER, WILLIAM...	209, St. Vincent Street, Glasgow.
1114	A. 1884, Feb. 25 F. 1890, Apr. 14	FREEMAN, SYDNEY	The Broadway, Tunbridge Wells, Ken and 28, Queen Street, E.C.
3008	1896, June 2	FRENCH, SAVAGE	2, South Mall, Cork, Ireland.
2796	1895, Sept. 2	FREND, HENRY	Townsend Street, Birr, King's County.
1217	1884, Dec. 8	FREUER, WILLIAM...	West Rudham, King's Lynn, Norfolk.
3087	1902, Feb. 21	FRITCHLEY, EDWIN WOLLASTON...	6, Sirdar's Palace, Hummum Street, Fo Bombay.
2069	1891, May 23	FROST, FREDERIC CORNISH ...	Teignmouth, Devon.
269	1875, Jan. 18	FRY, GEORGE FREDERICK	46, London Road, Dover, Kent.
3031	1898, Oct. 29	*FRY, JOSEPH HARRY	64, Craven Park, Willesden, N.W.
734	1882, Feb. 13	FRYER, GEORGE	Conservancy Buildings, Whitefriargat Hull, & Rose Villa, Bishop Wilton, ne York.
1060	1884, Jan. 14	FULLER, HARRY	83, High Street, Croydon.
547	A. 1883, May 21 F. 1888, Nov. 26	FULLER, HERBERT HENRY	15, Serjeants' Inn, Fleet Street, E.C.
1124	A. 1884, Mar. 10 F. 1891, Apr. 20	FULLER, THOMAS ALFRED	The College, All Saints', Derby.
723	1882, Mar. 13	FURBER, HERBERT	2, Warwick Court, Gray's Inn, W.C.
2467	A. 1887, Dec. 13 F. 1898, May 2	*FURBER, PERCY NORMAN	6, Great Winchester Street, E.C.
3032	A. 1897, Oct. 26 F. 1901, Jan. 14	*FURMEDGE, JOHN HARRIS	Estate Office, Lucknam, Chippenham Wilts.
3081	1899, Feb. 16	FYFE, JOHN WILLIAM	221, West George Street, Glasgow.
47	1876, Jan. 10	GAIRDNER, EDWARD JAMES ...	43, Chancery Lane, W.C.
[illegible]	1895, Sept. 2	GALBRAITH, HUGH	21, Westland Row, Dublin.
[illegible]	1896, Oct. 28	GALBRAITH, SAMUEL HAUGHTON, M.A., B.E. (*Dublin*)	Royal Engineer Office, Devonport Devonshire.
[illegible]	1891, Nov. 4	GALE, ARTHUR JOHN, F.R.I.B.A.	4, Serjeants' Inn, Fleet Street, E.C.
[illegible]	1891, Mar. 14	GALE, ERNEST SEWELL...	33, New Bridge Street, E.C.
[illegible]	A. 1900, Oct. 30 F. 1901, Nov. 25	*GALE, HARRY	High Street, Egham, Surrey.
[illegible]	1882, Feb. 27	GALE, JOSEPH JOHN	Market Place, Wallingford, Berks.

Dip. No.	Date of Election and of Transfer.	FELLOWS.	Address.
1582	A. 1893, Oct. 4 F. 1897, June 28	*FLETCHER, HERBERT PHILLIPS, F.R.I.B.A., A.M.I.C.E.	29, New Bridge St., Ludgate Circus, E.C
1465	1888, Mar. 5	FLETCHER, THOMAS	Estate Office, Dunkenhalgh, Clayton-le Moors, near Accrington, & 46, Fishe gate, Preston, Lancashire.
749	A. 1882, Feb. 13 F. 1891, June 29	FLINT, WILLIAM HURST	11, Searle St., Lincoln's Inn Fields, W.C
1734	1890, Feb. 24	FODEN, EDWARD ANTROBUS ...	Teddesley Estate Office, Penkridg Staffs.
2794	1895, Sept. 2	FORBES, ARTHUR	Earls Vale, Cavan, Ireland.
2067	1891, May 23	FORBES, CHARLES MANSFELDT ...	14, New Street, York.
2238	1891, Nov. 4	FORD, LAWTON ROBERT	118, High Street, Wandsworth, S.W.
2518	A. 1892, Nov. 28 F. 1895, May 13	*FORD, SOLOMON, A.R.I.B.A. ...	3, South Square, Gray's Inn, W.C.
640	1881, Dec. 19	FORREST, ROBERT	Windsor Estate Office, St. Fagans, ne Cardiff.
551	1879, Dec. 8	FORSHAW, EDWARD	Hanley, Staffordshire, and Springfiel Stramshall, Uttoxeter, Staffordshire
1039	1884, Jan. 14	FOSBERY, WILLIAM THOMAS EXHAM...	Warwick.
279	1872, Mar. 11	FOSTER, CHARLES ROLLS	54, Pall Mall, S.W.
1531	A. 1888, Dec. 10 F. 1892, Oct. 12	*†FOSTER, FRANK, A.R.I.B.A. ...	8, Duke Street, Adelphi, W.C.
2519	A. 1892, Nov. 28 F. 1895, Nov. 1	*FOSTER, JAMES HERBERT FURMEDGE...	8, Craig's Court, Charing Cross, S.W.
687	1882, Jan. 16	FOULKES, SEPTIMUS GIFFORD ...	Tring, Herts.
3187	1897, Oct. 26	FOWLER, ALFRED MOUNTAIN, M.I.C.E.	1, St. Peter's Square, Manchester.
686	1882, Jan. 16	FOWLER, FREDERICK	St. James' Street, Sheffield, Yorkshir
1806	1890, May 29	FOWLER, GERARD EDMUND... ...	Colmore House, 21, Waterloo Str Birmingham.
1807	1890, May 29	FOWLER, HENRY	198, Old Street, E.C., and Colton Hou Clifton Road, Rugby, Warwickshir
632	1882, Dec. 18	FOWLER, HENRY	6, Waterloo Street, Birmingham.
1780	1890, Apr. 14	FOWLER, REGINALD WILLIAM ...	3, Hartshead, Sheffield, Yorkshire.
1405	1887, Dec. 19	FOWLER, RICHARD	118, Colmore Row, Birmingham.
1605	1889, Mar. 18	FOWLER, SYDNEY, A.R.I.B.A. ...	9, Craig's Court, Charing Cross, S.W
2240	1891, Nov. 4	FOWLER, WILLIAM	69, Temple Row, Birmingham.
2241	1891, Nov. 4	FOX, CHARLES JAMES	7, Rawson Street, Halifax, Yorkshire
1815	1890, Nov. 22	FOX, EDWIN	99, Gresham Street, E.C.
3680	A. 1900, Oct. 30 F. 1902, Dec. 8	*FOX, ERNEST	15, Holdenhurst Road, Bournemou Hampshire.
2669	A. 1894, Oct. 30 F. 1899, Oct. 2	*FOX, FREDERICK RUSSELL	The Imperial Hotel, Barnstaple, Dev
3681	A. 1900, Oct. 30 F. 1901, Jan. 25	*FOX, WILLIAM	15, Holdenhurst Road, Bournemou Hampshire.
2122	1891, Nov. 4	FRAMPTON, ALFRED, A.R.I.B.A.	62 and 63, Basinghall Street, E.C.
2243	1891, Nov. 4	FRANCE, ARTHUR ALDERSON ...	99, Swan Arcade, Bradford, Yorkshi

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Date of Election and of Transfer.	FELLOWS.	Address.
1889, Jan. 14	FRANCIS, GEORGE FUTVOYE ...	Eaton Chambers, Buckingham Palace Road, S.W.
1890, Mar. 10	FRANCIS, LEON ALBERT	8, John Street, Adelphi, W.C.
1890, May 29	FRANKLIN, ARTHUR THOMAS ...	25, Ludgate Hill, E.C.
A. 1891, Nov. 4 F. 1895, Feb. 18	*FRANKLIN, BENJAMIN BELGROVE	21, Market Hill, Luton, Beds.
1896, Sept. 2	FRANKS, MATTHEW HENRY ...	Westfield, Mountrath, Queen's County.
1895, Sept. 2	FRANKS, MATTHEW HENRY, JUN.	Westfield, Mountrath, Queen's County.
A. 1896, Jan. 21 F. 1897, June 28	*FRASER, THOMAS SMELLIE... ...	209, St. Vincent Street, Glasgow.
A. 1891, Jan. 17 F. 1894, Dec. 10	*FRASER, WILLIAM...	209, St. Vincent Street, Glasgow.
A. 1884, Feb. 25 F. 1890, Apr. 14	FREEMAN, SYDNEY	The Broadway, Tunbridge Wells, Kent, and 28, Queen Street, E.C.
1896, June 2	FRENCH, SAVAGE	2, South Mall, Cork, Ireland.
1895, Sept. 2	FREND, HENRY	Townsend Street, Birr, King's County.
1884, Dec. 8	FREUER, WILLIAM...	West Rudham, King's Lynn, Norfolk.
1902, Feb. 21	FRITCHLEY, EDWIN WOLLASTON...	6, Sirdar's Palace, Hummum Street, Fort Bombay.
1891, May 23	FROST, FREDERIC CORNISH ...	Teignmouth, Devon.
1875, Jan. 18	FRY, GEORGE FREDERICK	46, London Road, Dover, Kent.
1898, Oct. 29	*FRY, JOSEPH HARRY	64, Craven Park, Willesden, N.W.
1882, Feb. 13	FRYER, GEORGE	Conservancy Buildings, Whitefriargate, Hull, & Rose Villa, Bishop Wilton, near York.
1884, Jan. 14	FULLER, HARRY	83, High Street, Croydon.
A. 1883, May 21 F. 1888, Nov. 26	FULLER, HERBERT HENRY	15, Serjeants' Inn, Fleet Street, E.C.
A. 1884, Mar. 10 F. 1891, Apr. 20	FULLER, THOMAS ALFRED	The College, All Saints', Derby.
1882, Mar. 13	FURBER, HERBERT	2, Warwick Court, Gray's Inn, W.C.
A. 1887, Dec. 19 F. 1898, May 2	*FURBER, PERCY NORMAN	6, Great Winchester Street, E.C.
A. 1897, Oct. 26 F. 1901, Jan. 14	*FURMEDGE, JOHN HARRIS	Estate Office, Lucknam, Chippenham, Wilts.
1899, Feb. 16	FYFE, JOHN WILLIAM	221, West George Street, Glasgow.
1876, Jan. 10	GAIRDNER, EDWARD JAMES ...	43, Chancery Lane, W.C.
1895, Sept. 2	GALBRAITH, HUGH	21, Westland Row, Dublin.
1896, Oct. 28	GALBRAITH, SAMUEL HAUGHTON, M.A., B.E. (*Dublin*)	Royal Engineer Office, Devonport, Devonshire.
1891, Nov. 4	GALE, ARTHUR JOHN, F.R.I.B.A.	4, Serjeants' Inn, Fleet Street, E.C.
1891, Mar. 14	GALE, ERNEST SEWELL...	33, New Bridge Street, E.C.
A. 1900, Oct. 30 F. 1901, Nov. 25	*GALE, HARRY	High Street, Egham, Surrey.
1882, Feb. 27	GALE, JOSEPH JOHN	Market Place, Wallingford, Berks.

Dip. No.	Date of Election and of Transfer.	FELLOWS.	Address.
55	1868, July 6	GALSWORTHY, FREDERICK THOMAS	11, Waterloo Place, S.W.
1713	1890, Feb. 10	GAMBLE, SIDNEY GOMPERTZ, A.M.I.C.E.	Metropolitan Fire Brigade, Southw Bridge Road, S.E.
1606	1889, Mar. 18	GANDY, JAMES	22, Essex Street, Strand, W.C.
3377	A. 1898, Oct. 29 F 1899, Nov. 13	*GARDINER, ROBERT STRACHAN ...	28, Dalebury Road, Upper Tooti S.W.
2520	A. 1892, Nov. 28 F. 1895, Mar. 4	*GARDNER, GILBERT	Crawley, Sussex.
2954	A. 1895, Oct. 24 F. 1898, Nov. 14	*GARNER, JOHN STANLEY	64, High Street, Weston-Super-Ma Somersetshire.
2246	1891, Nov. 4	GARRARD, NORTON BURROUGHS	Cranley Hall, Eye, Suffolk.
2798	1895, Sept. 2	GARRETT, JAMES HUGH MOORE	Corriewood, Castlewellan, Co. Down.
2247	1891, Nov. 4	GARROOD, THOMAS WILLIAM M.	Birkbeck Bank Chambers, High Holb W.C.
2799	1895, Sept. 2	GARVEY, TOLER ROBERT	Thornvale, Moneygall, King's Count
2800	1895, Sept. 2	GARVEY, TOLER ROBERT, JUN. ...	Estates Office, Parsonstown, King's C
1810	1890, May 29	GATE, ALFRED JOSEPH...	20, Mecklenburgh Square, W.C.
3540	A. 1899, Oct. 30 F. 1901, July 2	*GATE, HENRY ARTHUR ARMYTAGE	20, Mecklenburgh Square, W.C.
688	1882, Jan. 16	GATER, CALEB WILLIAM	Salisbury, Wilts.
1203	A. 1884, May 26 F. 1889, Jan. 14	GAYFORD, HENRY JOHN	Raynham Estate Office, East Raynh Norfolk.
1643	1889, Dec. 9	GAZE, THOMAS WILLIAM	Frenze Hall, Diss, Norfolk.
3501	1899, Oct. 30	GEDDES, ANDREW DONALD	War Office, Horse Guards, Whitel S.W.
935	1883, Apr. 30	GERMAN, GEORGE	Packington House, Ashby-de-la-Zo Leicestershire.
2521	A. 1892, Nov. 28 F. 1895, Nov. 11	*GERMAN, GEORGE, JUN.	Huntingdon House, Ashby-de-la-Zou
2070	1891, May 23	GERMAN, HARRY	Market Street, Ashby-de-la-Zouch, Loughborough.
887	1883, Feb. 12	GERMAN, JOHN (*Member of Council*)	Ashby-de-la-Zouch, Leicestershire.
3684	A. 1900, Oct. 30 F. 1902, Jan. 27	*GIBBON, EDWARD ACTON	Seaville, Tramore, Co. Waterford.
1294	A. 1886, Jan. 11 F. 1890, Nov. 10	GIBBON, WM. JACOMB, A.R.I.B.A.	57, Lincoln's Inn Fields, W.C.
1668	A. 1889, Dec. 9 F. 1893, May 8	*GIDDY, OSMAN HORTON	4, Waterloo Place, Pall Mall, S.W.
381	1875, Feb. 1	GILBERT, WILLIAM HENRY SAINSBURY	70, Queen Street, Cheapside, E.C.
3462	1899, Feb. 14	GILCHRIST, JOHN	70, Wellington Street, Glasgow.
3765	1901, Feb. 21	GILCRIEST, JOHN FAWCETT ...	General Valuation Office, 6, Ely P Dublin.
1621	1889, Apr. 29	GILLART, DAVID	Towyn, Merionethshire.
3463	1899, Feb. 14	GILLESPIE, JOHN	Blackhall, Paisley, Renfrewshire.
1466	1888, Mar. 5	GILPIN-BROWN, WILLIAM DUNDAS	Estate Office, Stoneleigh Abbey, K worth, Warwickshire.
213	1869, Dec. 6	GIRDWOOD, JAMES...	18, Adam Street, Adelphi, W.C.

Ap. No.	Date of Election and of Transfer.	FELLOWS.	Address.
420	1876, Jan. 24	GLASIER, GEORGE HENRY BROUGHAM	7, St. James's Street, S.W.
[illegible]	1890, Jan. 27	GLEED, RICHARD CUMMINGS ...	8 & 9, Martin's Lane, Cannon St., E.C.
[illegible]	1895, Sept. 2	GLOSTER, THOMAS EDWARD ...	Collon, Co. Louth.
[illegible]	A. 1894, Oct. 30 F. 1898, June 27	*GLOVER, HENRY ALEXANDER ...	21, Dahomey Street, Streatham, S.W.
[illegible]	A. 1896, Oct. 28 F. 1900, Oct. 1	*GOADBY, HOWARD	1 & 2, Station Yard, Twickenham.
[illegible]	1895, Sept. 2	GODLEY, ARCHIBALD	Killygar, Killeshandra, Co. Cavan.
[illegible]	1891, Nov. 4	GODSELL, GEORGE HERBERT ...	Palace Chambers, King St., Hereford.
[illegible]	A. 1897, Oct. 26 F. 1900, Feb. 12	*GOLDSMITH, DOUGLAS FLEET ...	Lavant Street, Petersfield, Hants.
[illegible]	1891, Mar. 14	GOLDSMITH, WILLIAM	40, Old Broad Street, E.C.
[illegible]	1891, Nov. 4	GOODACRE, JOHN, F.R.I.B.A. ...	5, Friar Lane, Leicester.
[illegible]	1883, Dec. 17	GOODCHILD, JOSIAH	Bank Chambers, Parkhurst Road, N.
1546	1889 Jan. 14	GOODWYN, LEONARD WILLIAM ...	8, Granville Chambers, Granville Plac Portman Square, W.
[illegible]	1902, Feb. 21	*GORDON, ALEXANDER	97, Queen Victoria Street, E.C.
314	A 1873, May 19 F 1878, Mar. 11	GORE, SPENCER W.	10, Little College Street, Westminste S.W.
[illegible]	1891, Jan. 17	GOTT, CHARLES, M.I.C.E.	8, Charles Street, Bradford, Yorkshire
[illegible]	1891, Nov. 4	GOTT, CHARLES HENRY	8, Charles Street, Bradford, Yorkshire
1867	1889, Jan. 28	GOTT, FRANK	3, East Parade, Leeds, Yorkshire.
673	A. 1877, Feb. 12 F. 1882, Dec. 18	GOTTO, FREDERICK EDWARD ...	Northampton.
[illegible]	A. 1897, Feb. 17 F. 1897, May 31	*GOULDING, ARTHUR	41, Moorgate Street, E.C.
870	1880, Apr. 12	GOULDING, WILLIAM PURDHAM ...	41, Moorgate Street, E.C.
[illegible]	1891, May 23	GOULDSMITH, GEORGE WALLER ...	2, Pont Street, Belgrave Square, S.W.
[illegible]	1891, May 23	GOVER, ARTHUR SUTTON, F.R.I.B.A.	4, Queen Street Place, E.C.
[illegible]	1891, Nov. 4	GOVER, JOHN RICHARD	44, Great Dover Street, Borough, S.E.
[illegible]	1899, Nov. 22	GRADWELL, ARTHUR RICHARD ...	29, Victoria St., Blackburn, Lancashire
[illegible]	1891, Nov. 4	GRAHAM, ARTHUR GORE	"Brookfield," Abergavenny, Monmouthshire.
[illegible]	1875, Jan. 18	GRAHAM, WILLIAM	Bank Chambers, Newport, Monmouthshire.
[illegible]	1884, Dec. 8	GRAIN, ARTHUR TRESS	2, St. Andrew's Hill, Cambridge.
[illegible]	A. 1882, Dec. 4 F. 1885, Jan. 12	GRANT, JAMES	Glandwr, Llanidloes, Montgomeryshire
[illegible]	1885, Mar. 9	GRAVES, WALTER, F.R.I.B.A. ...	Winchester House, Old Broad St., E.C.
[illegible]	1891, Nov. 4	GREAVES, JOHN OLDROYD	69, Westgate, Wakefield, Yorkshire.
[illegible]	A. 1899, Nov. 22 F. 1894, Jan. 22	*GREEN, ALEXANDER ERNEST ...	Colonial House, 155, Fenchurch Stree E.C.
[illegible]	A. 1891, May 23 F. 1897, May 31	*GREEN, EDMUND HORACE	17, St. Swithin's Lane, E.C.
[illegible]	A. 1893, Oct. 4 F. 1897, May 31	*GREEN, FREDERICK ALGERNON ...	17, St. Swithin's Lane, E.C.
[illegible]	1882, Jan. 16	GREEN, JAMES	22, Chancery Lane, W.C.
[illegible]	1897, Feb 17	GREENWOOD, JOSEPH	Royal Engineer Office, Colchester, Essex

Dip. No.	Date of Election and of Transfer.	FELLOWS.	Address.
3150	1897, Feb 17	GREGORY, ALFRED	War Office, Horse Guards, Whitehal S.W.
2955	A. 1895, Oct. 24 F. 1896, June 26	*GREGSON, GEORGE ERNEST... ...	11, Chapel Street, Preston, Lancashire
2257	1891, Nov. 4	GREGSON, WILLIAM	Baldersby, S.O., Yorks.
1087	1884, Feb. 11	GRELLIER, HARLEY MAIR	6, Queen Anne's Gate, S.W., and Epso Surrey.
371	1875, Jan. 18	GREY, CHARLES GREY, M.A. (*Durham*)	Ballycourcy, Enniscorthy, Co. Wexfo
2673	A. 1894, Oct. 30 F. 1896, May 11	*GRIFFIN, ALFRED	34, Coleman Street, E.C.
2073	1891, May 23	GRIFFIN, HAROLD	54, High Street, Battersea, S.W.
1714	1890, Feb. 10	GRIFFITHS, EDWARD	82, Warren Road, Stratford, Essex.
1736	1890, Feb. 24	GRIFFITHS, WILLIAM	Gelley-Wernen Estate, Llanelly, Ca marthenshire.
2258	1891, Nov. 4	GRIGGS, ROBERT, A.R.I.B.A. ...	11, Gray's Inn Square, W.C.
1611	1889, Apr. 1	GRIMLEY, EDWIN FEARN	40, Temple Street, Birmingham.
1612	1889, Apr. 1	GRIMLEY, THOMAS	40, Temple Street, Birmingham.
3379	A. 1898, Oct. 29 F. 1901, Dec. 9	*GRIPPER, JOSEPH EDWARD... ...	Pier Hotel Chambers, Herne Bay, Ken
2486	1892, Feb. 26	GROGAN, HENRY THOMAS	101, Park Street, Grosvenor Square, W
1811	1890, May 29	GROSE, VINCENT J., F.R.I.B.A. ...	13, Railway Approach, S.E.
1727	A. 1890, Feb. 10 F. 1893, Jan. 23	*GROVER, ARTHUR...	11, Cecil Court, Charing Cross Rd., W.
2674	A. 1894, Oct. 30 F. 1899, Jan. 23	*GROVER, PHILIP GORDON	Shepherdshill, Selling, Faversham, Ke
2260	1891, Nov. 4	GRUNING, EDWARD A., F.R.I.B.A.	25, Gresham House, Old Broad St., E.C
1737	1890, Feb. 24	GUDGEON, GEORGE EDWARD ...	Estate Agency Offices, Winchester, Han
1550	A. 1889, Jan. 14 F. 1900, May 21	*GUNTER, JAMES	Estate Office, Glasbury, Radnorshire.
2262	1891, Nov. 4	HABGOOD, HENRY CHARLES ...	Witney, Oxfordshire.
347	1874, Mar. 16	HADDOCK, ROLAND	44, Stephen's Road, Tunbridge We Kent.
1670	A. 1889, Dec. 9 F. 1893, Aug. 9	*HADLEY, FRANK	134, Edmund Street, Birmingham.
2523	A. 1892, Nov. 28 F. 1896, Oct. 1	*HAIGH, THOMAS FREDERICK ...	2, Friar Lane, Leicester.
2263	1891, Nov. 4	HALE, RAYMOND HENRY	33, Old Queen Street, S.W.
619	1881, May 2	HALL, ERNEST	56, Commercial Rd., Portsmouth, Han
3098	A. 1896, Oct. 28 F. 1897, June 28	*HALL, JOHN HERBERT	6, South St., Albert Square, Manchest 2, Dunham Road, Altrincham, a Knutsford, Cheshire.
1619	A. 1889, Apr. 1 F. 1891, Dec. 7	*HALL-JONES, FREDERICK	Parliament Mansions, Victoria Stre S.W., and 35, The Broadway, Ealing,
923	1883, Apr. 16	HALL, WALTER	38, Chancery Lane, W.C.

Date of Election and of Transfer.	FELLOWS.	Address.
A. 1886, Jan. 11 F. 1891, June 29	*HALL, WILLIAM TIMOTHY	College Hill, Shrewsbury.
1884, May 26	HALLETT, WILLIAM BROWN ...	11, Queen Victoria Street, E.C., and 278, Holloway Road, N.
1895, Sept. 2	HAMILTON, ARTHUR	40, Lower Dominick Street, Dublin.
1895, Sept. 3	HAMILTON, EDWARD CHETWOOD, MAJOR	Woodstock Estate Offices, Inistioge, Co. Kilkenny.
1890, Feb. 24	HAMILTON, JOHN	23 and 24, Wormwood Street, E.C.
1898, Feb. 18	HAMILTON, ROBERT	Lands Valuation Office, Greenock, Renfrewshire.
1897, Feb. 17	HAMMOND, ROBERT WILLIAM ...	Royal Engineer Office, Gibraltar.
A. 1891, May 23 F. 1896, Jan. 6	*HAMPTON, GEORGE FREDK. WM.	2 and 3, Cockspur Street, S.W.
1891, Nov. 4	HAMPTON, WILLIE THOMAS ...	Swan St., Loughboro', Leicestershire.
1890, Jan. 6	HANKINSON, THOMAS JAMES ...	Richmond Chambers, Bournemouth, Hants.
A. 1883, Feb. 12 F. 1889, Jan. 14	*†HANSELL, REGINALD GODDARD	5, Lancaster Place, Strand, W.C.
1891, Nov. 4	HANSON, JOHN HENRY, A.M.I.C.E.	20, Ramsden Street, Huddersfield, Yorkshire.
1881, Dec. 19	HARDCASTLE, FREDERICK HENRY APPLETON, A.R.I.B.A.	5, Old Queen Street, S.W.
A. 1877, Mar. 26 F. 1882, Dec. 18	HARDING, EDWARD ERNEST ...	66, Cannon Street, E.C.
1895, Sept. 2	HARDMAN, EDWARD CHAMBRÉ ...	14, Molesworth Street, Dublin.
1888, Apr. 30	HARDY, RICHARD THOMAS ASH	Land Agency and Estate Offices, Carter Street, Uttoxeter, Staffordshire.
1889, Apr. 1	HARGRAVES, STEPHEN	Brabyns Estate Office, Manor House, Marple, Cheshire.
1891, Mar. 14	HARLE, JOHN JOSEPH	Tortworth Estate Office, Falfield, Gloucester.
1891, Nov. 4	HARPUR, WILLIAM, M.I.C.E. ...	Town Hall, Cardiff, Glamorganshire.
A. 1878, Jan. 28 F. 1883, Oct. 11	HARRINGTON, GEORGE FREDERICK	16, Abchurch Lane, E.C.
1883, Dec. 17	HARRIS, JAMES	Winchester, Hants.
1897, Oct. 26	*HARRISON, CHARLES	179, Horninglow Street, Burton-upon-Trent, Staffordshire.
1903, Oct. 28	*HARRISON, FREDERICK	3, Welford Road, Leicester.
A. 1894, Oct. 30 F. 1901, Apr. 29	*HARRISON, GEORGE JOHN ROBERTSON...	77, Union Grove, Clapham, S.W.
1890, Feb. 24	HARRISON, JAMES THOMAS	Town Hall Offices, Buckingham.
A. 1897, Oct. 26 F. 1899, Dec. 11	*HARRISON, JOHN EDWARD	Estate Office, Allestree, near Derby.
1891, May 23	HARRISON, RICHARD CREESE, F.R.I.B.A.	103, Cannon Street, E.C.
1890, May 29	HARSTON, ARTHUR	15, Leadenhall Street, E.C.
1898, Feb. 18	HART, PATRICK CAMPBELL, A.M.I.C.E.	134, St. Vincent Street, Glasgow.
1899, Feb. 16	HART, JOHN	Cowie Mains, Stonehaven, Kincardineshire.

† Special Sanitary Science Certificate.

Dip. No.	Date of Election and of Transfer.	FELLOWS.	Address.
263	1871, Feb. 27	HART, WILLIAM FREDERICK ...	Lambeth Waterworks, Brixton Hill, S
2780	1895, Mar. 6	HARTLEY, HENRY	Bristow Chambers, 8, Harrington St Liverpool.
2806	1895, Sept. 2	HARVEY, JAMES GEO. MOREWOOD	Northern Bank Buildings, Londonde
523	A. 1878, Dec. 9 F. 1890, Jan. 6	HARVEY, JOHN JAMES SAYER ...	80, Castle Street, Canterbury, Kent.
1551	A. 1889, Jan 14 F. 1891, Oct. 15	HASKINS, WILLIAM ALBION... ...	12, King's Bench Walk, Temple, E.C.
312	1873, May 19	HASLAM, DRYLAND	Friar Street Chambers, Reading, Be
1672	A. 1889, Dec. 9 F. 1893, Aug. 9	*HASLAM, DRYLAND, JUN.	Friar Street Chambers, Reading, Be
962	A. 1883, May 25 F. 1889, Apr. 1	*HASLUCK, LANCELOT GERALD ...	Green Hill Park, New Barnet, Herts.
2268	1891, Nov. 4	HAWKER, HARRY EDWIN	St. Peter's Chambers, Bournemo Hants.
1472	1888, Mar. 19	HAWKINS, CHARLES	Downham Market, Norfolk.
3691	A. 1900, Oct. 30 F. 1903, July 1	HAWKINS, LANCELOT GOULDER ...	Downham Market, Norfolk.
1608	1889, Mar. 18	HAWLEY, SIR HENRY MICHAEL, BART.	Tumby Lawn, Boston, Lincolnshire.
2269	1891, Nov. 4	HAYNES, HENRY	Estate Office, Clifton, Nottingham.
1513	1888, Dec. 10	HAYTON, JOSEPH WILLIAM	9, Bank Street, Carlisle, Cumberland
1968	A. 1891, Jan. 17 F. 1894, Apr. 2	*HAYWARD, FREDERICK GEORGE...	Market Square, Dover, Kent.
644	1881, Dec. 19	HAYWARD, HENRY	Dover, Kent.
3233	A. 1897, Oct. 26 F. 1900, June 27	*HAYWARD, THOMAS WILLIAM ALFRED, A.M.I.C.E., M.I.M.E.	Municipal Buildings, Lavender S.W.
1254	1885, Feb. 23	HAYWOOD, WILLIAM MATTHEWS	9, West Street, Hereford.
1673	A. 1889, Dec. 9 F. 1891, May 25	*HEAD, JOHN GEORGE	7, Upper Baker Street, N.W.
3383	A. 1898, Oct. 29 F. 1901, Apr. 29	*HEALING, OSWALD JUDD	21, Queen Anne's Gate, Westminster,
833	1882, Dec. 18	HEARD, HERBERT	Shepton Mallet, Somerset.
2807	1895, Sept. 2	HEARN, CHARLES RICHARD ...	Annaghroe House, Caledon, Co. Tyr
2677	A. 1894, Oct. 30 F. 1898, Mar. 7	*HEASLER, HOLLAND CHARLES ...	Verandah Cottage, Hill Rise, Richm Surrey.
2270	1891, Nov. 4	HEATH, HENRY	34, Finsbury Pavement, E.C.
3384	A. 1898, Oct. 29 F. 1903, Dec. 7	*HEATH, HENRY CUBITT	142, Grange Road, Bermondsey, S.E
692	1882, Jan. 16	HEATON, GEORGE HERBERT ...	Endon, near Stoke-upon-Trent, Staf
617	1881, Apr. 4	HEBBLETHWAITE, LOUIS	Conservancy Buildings and Anlaby R Hull, Yorkshire.
1327	1886, Dec. 6	HEDLEY, JOHN HUNT	7, Ashbrook Terrace, Sunderland.
1088	1884, Feb. 11	HEDLEY, ROBERT WILKIN	41, Parliament Street, S.W., & Colmore Row, Birmingham.
1740	1890, Feb. 24	HEELIS, WILLIAM	26, Budge Row, E.C.
3047	A. 1896, June 2 F. 1902, Sept. 30	*HEMPHILL, CHARLES GEORGE CATHCART	11, Ely Place, Dublin.
1328	1886, Dec. 6	HENDRIKS, HENRY	43, Cannon Street, Birmingham, a Craig's Court, Charing Cross, S.W
3465	1899, Feb. 16	HENRY, JAMES	Lands Valuation Office, City Cham Glasgow.

Date of Election and of Transfer.	FELLOWS.	Address.
1887 Mar. 7	HEPPER, JOHN	East Parade, Leeds, Yorkshire.
1884, Dec. 8	HERBERT, ALLAN	The Market Place, Andover, Hants.
1896, June 2	*HERN, SAMUEL	93, St. Mary Street, Cardiff, Glamorganshire.
1888, Jan. 9	HESKETT, WILLIAM JAMES	St. Andrew's Churchyard, Penrith, and Viaduct Chambers, Carlisle, Cumberland.
A. 1894, Oct. 30 F. 1895, Dec. 9	*HEWARD, ERNEST JAMES	52, Wickham Road, Brockley, S.E.
1903, Oct. 28	HEWITT, FREDERIC THOMAS BAINES	Almora House, Prince's Avenue, Hull.
1895, Sept. 2	HEWSON, GEORGE RAWDON MAURICE	Dromahair, Co. Leitrim.
1903, Feb. 20	*HIBBERT, JOSEPH VICTOR	77, Croydon Road, Anerley, S.E.
1890, Feb. 10	HICKMAN, THOMAS	College Court, Shrewsbury, Shropshire.
1891, May 23	HICKSON, STEPHEN WESTBY ...	Telephone Buildings, 31, Queen Victoria Street, E.C.
1884, Jan. 28	HIGGINS, FREDERIC	Alford, Lincolnshire.
A. 1889, Dec. 9 F. 1891, May 25	*HIGGINS, GEORGE	12, Finchley Rd., St. John's Wood, N.W.
1891, May 23	HILL, THOMAS NELSON	180, Hope Street, Glasgow.
1886, Mar. 22	HILL, WILLIAM BURROUGH	62, Above Bar, Southampton, Hants.
A. 1886, Jan. 25 F. 1890, Mar. 24	HILLIARD, GEORGE EDWARD ...	Chelmsford, Essex.
1887, Apr. 18	HILTON, JOHN	30, Budge Row, E.C., and 17, Montpelier Row, Blackheath, S.E.
1891, May 23	HINCKS, HENRY THORP	Wigston Hall, Leicester.
1891, Nov. 4	HINDLE, JOHN	24, Bank Street, Bradford, Yorkshire.
A. 1900, Oct. 30 F. 1901, Nov. 25	*HINDMARSH, RALPH FREDERICK	Tyne Improvement Commission, Engineer's Office, Piers Works, South Shields, Co. Durham.
1891, Nov. 4	HINDS, HENRY	57, Queen Street, Ramsgate, Kent.
A. 1881, Dec. 19 F. 1883, Nov. 12	HINE, GEORGE ERNEST...	5, Waterloo Place, S.W.
1883, Feb. 26	HINE, GEORGE THOMAS	35, Parliament Street, S.W., and Victoria Street, Nottingham.
1890, Apr. 14	HIPPISLEY, EDWIN MAGGS	4, Chamberlain Street, Wells, Somerset.
1890, Apr. 14	HIPPISLEY, WILLIAM JOHN	12, Chamberlain Street, Wells, Somerset.
1882, May 22	HITCHCOX, WILLIAM	Bank Chambers, Newport, Monmouthshire.
1890, Mar. 24	HOBBS, JOHN	Estate Office, Ashford, Kent.
1878, Dec. 9	HOBGEN, FRANCIS NEALE	East Street, Chichester, Sussex.
1891, May 23	HOBGEN, THOMAS CECIL	Highleigh, Sidlesham, near Chichester, Sussex.
1883, Feb. 12	HOBSON, FREDERICK WILLIAM ...	79, Coleman Street, E.C.
1891, Mar. 14	HOBSON, HARRY	Swineflect, near Goole, Yorkshire.
1878, Dec. 9	HODSON, GEORGE, M.I.C.E.	Loughborough, and Abbey Buildings, Princes Street, Westminster, S.W.
1895, Sept. 2	HODSON, GILBERT NEVILLE	Ardbrae, Bray, Co. Wicklow.

Dip. No.	Date of Election and of Transfer.	FELLOWS.	Address.
2809	1895, Sept. 2	HODSON, RICHARD EDMOND, M.A. (*Dublin*)	Coolfadda House, Bandon, Co. Cork.
2275	1891, Nov. 4	HODSON, WILLIAM	7, Finsbury Square, E.C.
2081	1891, May 23	HOGGARTH, ARTHUR	Kendal, Westmoreland.
2082	1891, May 23	HOGGARTH, EDWIN	Midland Bank Chambers, Kendal, We moreland
793	1882, Apr. 24	HOLBECHE, ROBERT NEVILLE ... (*Member of Council*)	21, Bennett's Hill, Birmingham.
357	1874, Nov. 16	HOLDEN, JOHN, F.R.I.B.A.	5, St. James's Square, Manchester.
1155	1884, May 5	HOLIDAY, FREDERICK DEAN ...	Bicester, Oxfordshire.
2557	A. 1893, Oct. 4 F. 1897, Feb. 8	*HOLIDAY, PERCY CAVE	Bicester, Oxfordshire.
3387	A. 1898, Oct. 29 F. 1901, July 2	*HOLL, MACKINTOSH MELENG ...	Delmore, Caterham Valley, Surrey.
893	A. 1883, Feb. 12 F. 1889, Nov. 11	HOLLAND, THOMAS JAMES, JUN...	14, Raleigh Gardens, Brixton Hill, S.
2277	1891, Nov. 4	HOLLINGSWORTH, ARTHUR AUGUSTUS	62, St. Martin's-le-Grand, E.C.
3190	1897, Oct. 26	*HOLLIS, WALTER DAWSON	26, Park Row, Leeds, Yorkshire.
2278	1891, Nov. 4	HOLLOWAY, HARRY HOWNAM ...	Market Harborough, Leicestershire.
2279	1891, Nov. 4	HOLMAN, GEORGE EDWARD ...	6, King's Bench Walk, Temple, E.C.
1272	1885, Nov. 9	HOLME, JOHN	Owlet Ash, Milnthorpe, Westmorelan
2009	1891, Mar. 14	HOLMES, MONTAGU	33, Paternoster Row, E.C.
2811	1895, Sept. 2	HOLMES, WILLIAM EDEN	69, Dann Street, Dublin.
2280	1891, Nov. 4	HOLT, GEORGE HY., A.M.I.C.E. ...	20, Richmond Terrace, Blackburn, L cashire.
2281	1891, Nov. 4	HOMAN, FRANKLIN GEORGE ...	184, Eastgate, Rochester, Kent.
1595	A. 1889, Feb. 25 F. 1897, May 31	*HOMAN, HUBERT FRANKLIN ...	184, Eastgate, Rochester, Kent.
1741	1890, Feb. 24	HONEYBALL, FRED. THOMAS ...	Deal, Kent.
3846	A. 1901, Oct. 29 F. 1903, May 18	HOOD, HERBERT CHARLES	318, Commercial Road, E.
3101	A. 1896, Oct. 28 F. 1900, Dec. 10	*‡HOOD, THOMAS	Birdbrook, Halstead, Essex.
3040	1896, June 2	*HOOD, WALTER RICHARD	37, Walbrook, E.C.
3547	A. 1899, Oct. 30 F. 1901, July 2	*HOOLEY, ARTHUR JOHN	The College, All Saints', Derby.
1446	A. 1888, Jan. 23 F. 1896, Jan. 6	*HOOPER, CECIL HENRY	Church House, Shoreham, Sevenoa Kent.
2964	A. 1895, Oct. 24 F. 1899, Nov. 13	*HOOPER, EDGAR WILFRED	15, High Street, East Grinstead, Suss
3548	A 1899, Oct. 30 F. 1900, Oct. 1	*HOPE, ARTHUR ERNEST	Great Eastern Railway Land Agen Office, Liverpool Street Station, E.
1097	A. 1884, Feb. 11 F. 1889, Jan. 28	HOPE, WILLIAM ELLIOTT	7, East India Avenue, Leadenhall St., E
1644	1889, Dec. 9	HOPKINS, ALFRED JAMES	37, Mortimer St., Cavendish Square,
2282	1891, Nov. 4	HOPKINSON, ALFRED, A.M.I.C.E.	15, Agar Street, Bury, Lancashire.
2010	1891, Mar. 14	HORNE, EDMUND	High Street, Hounslow, Middlesex.
794	1882, Apr. 24	*HORNE, WILLIAM EDGAR ... ... (*Member of Council*)	85, Gresham Street, E.C., and Delahay Street, S.W.

‡ Special Forestry Certificate.

Date of Election and of Transfer.	FELLOWS.	Address.
1887, May 9	HORNOR, CHARLES JARED	32, Prince of Wales' Road, Norwich, Norfolk.
1887, May 9	HORNOR, FRANCIS...	Queen Street, Norwich, Norfolk.
1890, May 29	HORSEY, FREDERICK JOHN TERRY	11, Billiter Square, E.C.
1869, Feb. 22	HORSFALL, RICHARD	22A, Commercial St., Halifax, Yorkshire.
1890, Mar. 10	HORSFALL, RICHARD EDGAR ...	22A, Commercial St., Halifax, Yorkshire.
1891, Nov. 4	HORSFIELD, J. NIXON	11, Penrhyn Road, Kingston-on-Thames.
1895, Sept. 2	HOSFORD, EDWARD HENRY POE	76, George Street, Limerick, Ireland.
A. 1901, Oct. 29 F. 1902, July 14	*HOSKINS, MARCUS	Council Offices, Mumbles, Glamorganshire.
1891, Nov. 4	HOUGHTON, FREDERICK	68, Bishopsgate Street Within, E.C.
1891, Nov. 4	HOUGHTON, JOHN POUNDS	26, The Avenue, Kew, and Richmond.
1899, Oct. 30	*HOUGHTON, THOMAS MARCUS ...	21, Union Road, Clapham Road, S.W.
1891, Jan. 17	HOUGHTON, WILLIAM	58, Old Broad Street, E.C.
1889, Feb. 25	HOVENDEN, HENRY EDWARD ...	30, Bishopsgate Street Without, E.C.
1891, May 23	HOWARD, HARRY	Town Offices, Littlehampton, Sussex.
1898, Feb. 18	HOWATT, WILLIAM	146, Buchanan Street, Glasgow.
A. 1900, Oct. 30 F. 1901, Mar. 21	*†HOWES, ARTHUR BURNABY ...	193, High Road, Balham, S.W.
A. 1869, Feb. 8 F. 1883, Mar. 12	HUBBERSTY, HENRY ALFRED ...	Buxton, Derbyshire.
A. 1898, Oct. 29 F. 1904, Jun. 28	*HUDSON, ALBERT WILLIAM... ...	87, Finsbury Pavement, E.C.
1883, Apr. 30	HUDSON, ARTHUR BYRNE	16, Godliman Street, E.C.
1891, May 23	HUDSON, EDW. WM., A.R.I.B.A....	76, Fellows Rd. N.W., & Hove, Sussex.
1884, Mar. 10	HUDSON, JAMES	Penrith, Cumberland.
1889, Mar. 18	HUGMAN, CHARLES EADY	9, Craig's Court, Charing Cross, S.W.
1895, Sept. 2	HUMPHREYS, DANIEL PEARD ...	80, South Mall, Cork, Ireland.
1881, Dec. 5	HUMPHREYS, HENRY	Woodhouse, Loughborough, Leicestershire.
1891, May 23	HUMPHREYS, JOHN HENRY ...	Woodhouse, Loughborough, Leicestershire.
1891, May 23	HUNT, FREDERICK COPE	6, Queen Anne's Gate, Westminster, S.W.
1891, Nov. 4	HUNT, FRED. WM. H., F.R.I.B.A.	30, York Place, Portman Square, W.
A. 1899, Oct. 30 F. 1902, Dec. 8	*HUNT, GEORGE WHITAKER	Estate Office, Holme Lacy, Herefordshire.
1874, May 11	HUNT, HENRY ARTHUR	45, Parliament Street, S.W.
1869, Mar. 8	HUNT, JOSIAH...	6, Queen Anne's Gate, S.W.
1891, May 23	HUNT, THOMAS	Baldock Street, Ware, Herts.
1895, Sept. 2	HUNT, WILLIAM LEWIS	83, George Street, Limerick, Ireland.
1895, Sept. 2	HUNT, WILLIAM POWER	5, Glentworth Street, Limerick, Ireland.
1891, Jan. 17	HUNTER, CECIL	Cricklewood, Middlesex.
1891, Nov. 4	HURRELL, JOHN WEYMOUTH ...	25, Brazennose Street, Manchester.
A. 1893, Dec. 17 F. 1891, Jan. 5	HUSKINSON, THOMAS WILLIAM ...	Epperstone Manor, Nottingham.
1874, Jan. 19	HUSKINSON, WILLIAM LAMBE ...	The Manor House, Epperstone, Notts.
A. 1884, May 19 F. 1889, Dec. 9	HUSSEY, ROBERT	Eastfields, near Lichfield, Staffordshire.

† Special Sanitary Science Certificate.

Dip. No.	Date of Election and of Transfer.	FELLOWS.	Address.
2814	1895, Sept. 2	HUSSEY, SAMUEL MURRAY	18, Elvaston Place, S.W., and Edenbu Gortalea, Co. Kerry.
2818	1895, Sept. 2	HUTCHINS, SAMUEL NEWBURGH...	Ardnagashel, Bantry, Co. Cork.
563	1880, Jan. 19	I'ANSON, EDWARD BLAKEWAY, F.R.I.B.A. (*Member of Council*)	7A, Laurence Pountney Hill, E.C.
1137	1884, Apr. 21	INGE, CHARLES HENRY	Broom Leasoe, Whittington, Lichfie Staffordshire.
305	A. 1873, Feb. 10 F. 1882, Jan. 16	INGRAM, WALTER FIELDE	2, St. Andrew's Place, Lewes, and Preston Street, Brighton, Sussex.
834	1882, Dec. 18	INMAN, MARSHALL NISBET... ...	7, Bedford Row, W.C.
2290	1891, Nov. 4	INMAN, WILLIAM NUTTER	126, Maida Vale, W.
2291	1891, Nov. 4	IRELAND, EDWIN BENJAMIN ...	Guestwick, East Dereham, Norfolk.
2819	1895, Sept. 2	IRVINE, HY., LIEUT.-COL.	Omagh, Co. Tyrone.
3191	1897, Oct. 26	*ISTED, SAMUEL EVELAND	Royal Engineer Office, North Ca Aldershot, Hants.
1942	1891, Jan. 17	JACKSON, BENJAMIN WHITEHEAD	Elcho House, Halifax, Yorkshire.
570	1880, Feb. 16	JACKSON, CHARLES	23, Brazennose Street, Manchester.
4122	1903, Oct. 28	JACKSON, HENRY	Dehra Dun, N.W. Provinces, India.
1404	1887, Dec. 19	JACKSON, WILLIAM TRESS	117, High Street, Sittingbourne, Ken
2293	1891, Nov. 4	JAMES, CHRISTIAN HUGH	Rudchester, Wylam-on-Tyne, North berland.
2820	1895, Sept. 2	JAMESON, ROBT. WILLIAM	Estates Office, Foynes, Co. Limerick.
2684	A. 1894, Oct. 30 F. 1899, June 26	*JARMAIN, WILLIAM	149, Seven Sisters Rd., Finsbury Pk.
2527	A. 1892, Nov. 28 F. 1898, Oct. 3	*JARMAN, FRANK WILMOT	4, High Street, Croydon.
1302	1886, Jan. 25	JEANS, MARK...	Marlborough, Wilts.
2588	A. 1893, Oct. 4 F. 1895, Nov. 25	*JEFFREE, SYDNEY	9, Southampton St., Bloomsbury Sq., W
2967	A. 1895, Oct. 24 F. 1897, May 31	*JENKIN, ARTHUR PEARSE	Trewirgie, Redruth, Cornwall.
2294	1891, Nov. 4	JENKINS, OSWALD	57, Colmore Row, Birmingham.
3238	A. 1897, Oct. 26 F. 1903, Dec. 7	*JENKINS, RICHARD JAMES	Town Hall, Portsmouth, Hampshire.
2589	A. 1893, Oct. 4 F. 1895, Nov. 25	*JENKINSON, JOHN	1, Princes Street, Westminster, S.W
3160	A. 1897, Feb. 17 F. 1899, Mar. 20	*JENKINSON, WILLIAM ERIC LEIGH	6, Moorgate Street, E.C.
736	1882, Feb. 13	JENKINSON, WILLIAM WILBERFORCE	6, Moorgate Street E.C.
2685	A. 1894, Oct. 30 F. 1897, Nov. 8	*JENNER, WILLIAM	1, Western Road, Hove, Brighton, Sus
3048	A. 1896, June 2 F. 1900, June 27	*JENNINGS, FITZ-LAURENCE PERCIVAL DUDLEY	34, Osnaburgh Street, N.W.
2012	1891, Mar. 14	JENNINGS, WILLIAM JOSEPH ...	4, St. Margaret's St., Canterbury, K
3062	1896, Oct. 28	JEROME, THOMAS STROUD, I.S.O.	Mandora, Effingham Road, Surbi Surrey, and Horse Guards, White S.W.

Date of Election and of Transfer.	FELLOWS.	Address.
1883, Dec. 17	JEUDWINE, WILLIAM WYNNE ...	Chesterfield, Derbyshire.
A. 1892, Nov. 28 F. 1896, Nov. 23	*JOHNSON, BERNARD MARR	9, Whitehall Place, S.W.
A. 1883, May 25 F. 1885, Jan. 26	*JOHNSON, HENRY	35, Coleman Street, E.C.
1895, Sept. 2	JOHNSON, JOCELYN OTWAY	Kilganon, Enniskerry, Co. Clare.
A. 1887, Dec. 19 F. 1894, May 28	*JOHNSTON, WALTER HENRY... ...	County Offices, Auditors' Department, Preston, Lancashire.
A. 1898, Oct. 29 F. 1903, July 1	*JOHNSTON, REGINALD	50, Moorgate Street, E.C.
A. 1902, Oct. 28 F. 1904, Jan. 25	*JOHNSTONE, AUGUSTUS FREDERIC	Whitchester, Arundel Road, Eastbourne, Sussex.
1893, Feb. 16	JOHNSTONE, JAMES	Alloway Cottage, Ayr, Ayrshire.
1895, Sept. 2	JOHNSTONE, JOHN BRETT	Ballycastle, Co. Antrim.
1891, Nov. 4	JOLLY, JOHN HAWKINS...	1, Dalton Terrace, The Mount, York.
A. 1888, Feb. 20 F. 1891, May 25	*JONAS, HARRY MARSHALL	27, Market Place, Cambridge.
A. 1869, Apr. 5 F. 1878, Feb. 25	JONAS, HENRY	23, Pall Mall, S.W.
1885, Apr. 20	JONES, CHARLES, M.I.C.E.	The Lodge, Culmington Road, Ealing, W.
1882, Mar. 13	JONES, CHARLES FREDERICK ...	Eldon Chambers, 30, Fleet Street, E.C.
A. 1896, Oct. 28 F. 1898, Dec. 12	*JONES, ERNEST JOEL	53, Maida Vale, W.
1890, Jan. 27	JONES, FRANCIS WILLIAM	2, Frewin Court, Corn Market St., Oxford.
A. 1883, May 25 F. 1886, Nov. 8	*†JONES, HENRY ARTHUR	49, Bedford Street, Strand, W.C.
1890, Nov. 22	JONES, ISAAC M., A.M.I.C.E. ...	The Town Hall, Chester.
A. 1881, Dec. 19 F. 1891, May 25	JONES, THOMAS, M.I.C.E.	1, Princes Street, Westminster, S.W.
1887, Jan. 10	JONES, WALTER BUTLER CLOUGH	Mynydd, Ednyfed, Criccieth, North Wales.
1891, Mar. 14	JONES, WILLIAM EDWARD	Anglesey Estate Office, Craig, Llanfair, P.G., Anglesey.
1891, Nov. 4	JOPLING, JOSEPH	Wallington, Surrey.
1891, Nov. 4	JOSELAND, CHARLES	Bank Buildings, Kidderminster, Worcestershire.
1888, Mar. 5	JOSEPH, DELISSA, F.R.I.B.A. ...	Portland House, Basinghall Street, E.C.
1884, Feb. 25	JOYCE, JOHN HALL	Blackfordby, near Burton-on-Trent, Staffordshire.
A. 1875, Dec. 13 F. 1887, Mar. 21	KAYE, JOHN EDWARD	Bretton Lodge, Wakefield, Yorkshire.
1896, Jan. 21	KEANE, MARCUS	Beech Park, Ennis, Co. Clare.
1884, May 26	KEDGLEY, CHARLES	Hibernia Chambers, London Bridge, S.E.
1880, Nov. 8	KEIRLE, ROBERT, F.R.I.B.A. ...	Clarefield, Sunningdale, Ascot, Berkshire.
1901, Feb. 21	*KELLY, JOHN GEORGE...	West View, Pontefract, Yorkshire.
1895, Sept. 2	KELLY, RICHARD HENRY	21, The Mall, Waterford.
A. 1889, Nov. 22 F. 1892, July 4	*KEMP-SMITH, JAMES FRED	Orsett, Essex.

† Special Sanitary Science Certificate.

Dip. No.	Date of Election and of Transfer.	FELLOWS.	Address.
1716	1890, Feb. 10	KENNEDY, JAMES	25, Bedford Row, W.C.
1191	1884, May 26	KENT, GEORGE EDWARD	"Normanhurst," Cavendish Road, Soa sea, Hants.
2299	1891, Nov. 4	KENWRICK, GEORGE	83, Colmore Row, Birmingham.
3240	A. 1897, Oct. 26 F. 1901, Apr. 29	*KERR, JOHN MURRAY	27, Cresswell Grove, West Didsbu Manchester.
3332	1898, Oct. 29	*KERRUISH, WILLIAM MALTBY ...	21, Athol Street, Douglas, Isle of Ma
1614	1889, Apr. 1	KERSEY, ALEX. H., F.R.I.B.A. ...	21, Finsbury Pavement, E.C.
1850	1890, Nov. 22	KIDWELL, JOHN	St. Margaret's Bank, Rochester, Ken
2689	A. 1894, Oct. 30 F. 1903, Sept. 28	*KILLICK, ANTHONY EDWARD ...	29, Terminus Road, Eastbourne, Suss
2824	1895, Sept. 2	KINCAID, JAMES STEWART	7, Leinster Street, Dublin.
2825	1895, Sept. 2	KINCAID, JOSEPH WESTBY	7, Leinster Street, Dublin.
1125	A. 1884, Mar. 10 F. 1888, Dec. 10	*KING, ALFRED	12, Princes Street, Westminster, S.W
873	1883, Jan. 29	KING, FRANK HULME	Horsham, Sussex.
1192	1884, May 26	KING, HENRY	Stourbridge, Worcestershire.
1193	1884, May 26	KING, THOMAS	Pembroke House, Portsmouth, Hants.
3105	A. 1896, Oct. 28 F 1901, Feb. 11	*KINGSFORD, PERCY HAMILTON ...	24, High Street, Canterbury, Kent.
808	1882, May 8	KINGSTON, SAMUEL	Spalding, Lincoln.
1502	1888, Nov. 26	KIRBY, EDMUND, F.R.I.B.A. ...	5, Cook Street, Liverpool.
3493	A. 1899, Feb. 16 F. 1903, Sept. 28	*KIRBY, EDMUND FRANCIS JOSEPH	5, Cook Street, Liverpool.
3021	A. 1896, Jan. 21 F. 1900, Nov. 26	*KIRK, JOHN WRIGHT	23, Palace Street, Westminster, S.W.
3298	1898, Feb. 18	KIRKWOOD, CHARLES	67, West Regent Street, Glasgow.
2303	1891, Nov. 4	KITTOW, JOHN	West Holm, Launceston, Cornwall.
2487	1892, Feb. 26	KNIGHT, EDGAR WALSH	48, South Street, Greenwich, S.E.
2530	A. 1892, Nov. 28 F. 1901, Nov. 25	*KNIGHT, GEORGE EDWARD	2, West Chislehurst Park, Eltham, S.
3063	1896, Oct. 28	KNIGHT, HENRY ST. JOHN	Royal Engineer Office, Island Bri Barracks, Dublin.
2826	1895, Sept. 2	KNIGHT, MAURICE CHARLES ...	The Grange, Ballymena, Co. Ant Ireland.
853	A. 1882, Dec. 18 F. 1889, Dec. 9	KNOWLES, HENRY	Egerton House, The Spa, Gloucester.
2827	1895, Sept. 2	KNOX, ALBERT FREDERIC	Estate Office, Ballina, Co. Mayo.
2830	1895, Sept. 2	KNOX, ALBERT HENRY	Estate Office, Ballina, Co. Mayo.
3178	1897, Oct. 26	KNOX, ALEXANDER	53, Bothwell Street, Glasgow.
2828	1895, Sept. 2	KNOX, EDWARD ERNEST	8, Milward Terrace, Bray, Ireland.
2829	1895, Sept. 2	KNOX, ERNEST HENRY...	Greenwood Park, Crossmolina, R.S. Co. Mayo.
3467	1899, Feb. 16	LAING, DAVID TAYLOR	20, Bridge Street, Glasgow.
2971	A. 1895, Oct. 24 F. 1899, June 26	*LAKE, CUTHBERT JOSEPH	25, Bucklersbury, E.C.

	Date of Election and of Transfer.	FELLOWS.	Address.
2	A. 1895, Oct. 24 F. 1896 Oct. 1	*LAKIN-SMITH, ERNEST...	Colmore House, 21, Waterloo St Birmingham.
3	A. 1889, Jan. 14 F. 1891, Dec 7	*LAMBERT, GODFREY CHARLES ...	10, Basinghall Street, E.C.
7	1891, Nov. 4	LAMMIE, GEORGE	138, Hope Street, Glasgow.
8	1887, Dec. 5	LANCASTER, CHARLES HOLLAND	Union Offices, Brougham Terrace, Derby Road, Liverpool.
9	A. 1893, Oct. 4 F. 1899, Oct. 2	*LANCASTER, JOHN ROY	85, Gresham Street, E.C.
10	1891, May 23	LANE, ERNEST LACAN	81, Old Christchurch Rd., Bournemo Hants.
8	1890 Jan. 6	LANG, CHARLES AUGUSTUS... ...	3, King Street, Cheapside, E.C.
12	1882, Feb. 27	LANGRIDGE, GEORGE .. .. (*Vice-President*)	The Broadway, Tunbridge Wells, Ke
13	1889, Dec. 9	LARMUTH, GEORGE HORATIO ...	Wilton Chambers, 10, St. Ann's Squ Manchester.
10	A. 1899, Oct. 30 F. 1903, July 1	*LATHAM, ALBERT TUMMONS ...	100, High Street, Croydon, Surrey.
15	1891, Mar. 14	LATTER, HUGH ROBINSON	The Town Hall, Bromley, Kent.
15	1868, Nov. 9	LAURANCE, JOHN	Shortacre, Peterborough, Northamp shire.
11	1891, May 23	LAWRANCE, WALTER	13, Hart Street, Bloomsbury Sq., W.
14	1891, Jan. 17	LAWRENCE, ARTHUR	Great Marlow, Bucks.
19	A. 1883, Dec. 17 F. 1889, Nov. 11	LAWRENCE, WILLIAM ROBERT ...	57 & 58, Chancery Lane, W.C.
16	A. 1891, Jan. 17 F. 1895, Mar. 4	*LEANING, HENRY JOHN	28, John Street, Bedford Row, W.C.
11	1888, Feb. 20	LEANING, JOHN	28, John Street, Bedford Row, W.C.
10	A. 1894, Oct. 30 F. 1895, Nov. 25	*LEANING, WILLIAM ARTHUR ...	30, Telford Avenue, Streatham Hill, S
18	1894, Oct. 30	*LEATHER, GEORGE HERBERT ...	Central Bank Chambers, Leeds, Y shire.
18	A. 1897, Oct. 26 F. 1900, Oct. 1	*LEATHER, WILLIAM BEAUMONT ...	The Hollies, Leeds, Yorkshire.
18	A. 1895, Oct. 24 F. 1900, Nov. 12	*LEE, ERNEST EDWARD ARTHUR	29, Basinghall Street, E.C.
18	1874, Feb. 2	LEE, FREDERICK	12, Little College Street, S.W.
14	A. 1887, Jan. 10 F. 1893, Nov. 13	*LEE, JOHN WILFRID	Town Hall, Haverstock Hill, N.W.
16	1889, Mar. 18	LEE, PHILIP SHIRLING	35, Craven Street, W.C., and Oakla Woodford, Essex.
12	1891, May 23	LEE, SYDNEY WILLIAMS, F.R.I.B.A.	63, Lincoln's Inn Fields, W.C.
19	1884, Feb. 11	LEE, WILLIAM	143½, High Street, Guildford, Surrey.
15	A. 1901, Oct. 29 F. 1904, Feb. 22	*LEE-NORMAN, ALEXANDER HENRY	Corbollis, Ardee, Co. Louth.
17	1895, Oct. 24	*LEEDER, ERNEST HOLTHAM ...	46, Waterloo Street, Swansea, Glam ganshire.
15	1891, Mar. 14	LEGARD, DIGBY CHARLES	Highington Hall, Lincoln.
15	1882, Dec. 18	LEMON, JAMES, M.I.C.E., F.R.I.B.A.	Southampton, Hants.
17	1882, Jan. 30	LEPPER, JOHN HARRAGE	10, Market Square, Bromley, Kent.

Dip. No.	Date of Election and of Transfer.	FELLOWS.	Address.
298	A. 1873, Jan. 27 F. 1882, Apr. 24	LERMIT, ALFRED WILLIAM... ...	Singapore, Straits Settlement.
647	1881, Dec. 19	LIGHTFOOT, FRANCIS LOWRY, B.A. (*Oxon.*)	23, Abingdon Street, S.W.
901	1883, Feb. 26	LIGHTFOOT, HENRY LE BLANC, M.A. (*Oxon.*)	Corpus Christi College, Oxford.
1646	1889, Dec. 9	LINAKER, CHARLES EDWARD ...	Frodsham, Cheshire.
1405	1887, Dec. 19	LISTER-KAYE, CHARLES WILKINSON	Osberton, Worksop, Notts.
2310	1891, Nov. 4	LITTLE, WILLIAM	Hutton Hall, Penrith, Cumberland.
949	A. 1883, May 21 F. 1888, Apr. 16	LITTLE, WILLIAM DAVIS	Middleton Stoney, Bicester, Oxon.
2311	1891, Nov. 4	LITTLEWOOD, LIONEL	26, Great James St., Bedford Row, W.
2093	1891, May 23	LLEWELLIN, DAVID MORGAN ...	Glanwern Offices, Pontypool.
2834	1895, Sept. 2	LLOYD, AVERELL	Benburd, Moy, Co. Tyrone.
3399	A. 1898, Oct. 29 F. 1901, Dec 9	*LLOYD, DONALD	63, Sidney Street, Cambridge.
2488	1892, Feb. 26	LLOYD, GEORGE HAMILTON, A.M.I.C.E.	Care of T. Scrivener, Esq., Unit African Lands, 20, Bucklersbury, E
648	1881, Dec. 19	LOCK, WILLIAM HENRY	Instow, North Devon.
3468	1899, Feb. 16	LOCKHART, PETER	Estate Office, Corby Castle, Carli and Blackwood House, Ecclefech Dumfriesshire.
3564	A. 1899, Oct. 30 F. 1903, Nov. 9	*LOFTHOUSE, ALBERT WILSON ...	62, Albert Road, Middlesbrou Yorkshire.
1164	A. 1884, May 5 F. 1891, June 29	LOFTS, HENRY FAIRLAM	130, Mount St., Grosvenor Square, W
3469	1899, Feb. 16	LOGAN, JAMES	Coltness, Wishaw, Lanarkshire.
3565	A. 1899, Oct. 30 F. 1900, Nov. 12	*LOMAS, ALBERT DANIEL	Estate Department, Lancashire a Yorkshire Railway, Manchester.
2462	A. 1891, Nov. 4 F. 1895, July 8	*LONGSDON, ERNEST MOREWOOD ...	Town Hall, Bakewell.
1138	1884, Apr. 21	LOOKER, JOHN	Hinton Lodge, Cavendish Avenue, C bridge, and High Street, Hunting
2314	1891, Nov. 4	LORING, JOHN	The Cottage, Doddington, Nantw Cheshire.
1396	1887, Nov. 14	LOVEGROVE, HENRY, A.R.I.B.A....	18, Foxgrove Road, Beckenham, K and 124, High Street, Shoreditch,
1814	1890, May 29	LOVEYS, ARTHUR CLAMPITT ...	Moretonhampstead, Devon.
1126	A. 1884, Mar. 10 F. 1891, Feb. 16	LOW, ROBERT JOHN	49, Finsbury Pavement, E.C., & Albans, Hertfordshire.
738	1882, Feb. 13	LOWE, CHARLES HARLOWE, M.I.C.E.	30, Somerset Street, Portman Squar
2532	A. 1892, Nov. 28 F. 1897, June 28	*LUCAS, JOHN ARCHIBALD	Guildhall Chambers, High Street, Ex Devonshire.
1648	1889, Dec. 9	LUCAS, WILLIAM EDWARD	Bexley, Kent.
1742	1890, Feb. 24	LUDLOW, WALTER ROBERT... ...	Dorridge, Knowle, Warwick, and New Street, Birmingham.
3567	A. 1899, Oct. 30 F. 1900, June 27	*LUKER, DYNELEY	19, Basinghall Street, E.C.

Date of Election and of Transfer.	FELLOWS.	Address.
1891, May 23	LYNAM, CHARLES, F.R.I.B.A. ...	Stoke-on-Trent, Staffordshire.
A. 1899, Oct. 30 F. 1903, Jan. 26	*LYNES, HUMPHREY DOD	The Halkyn Estate Office, Holywell, Flintshire.
1898, Feb. 18	LYONS, FRANCIS OLIVER, M.A. (*Dublin*)	6, Ely Place, Dublin.
1890, Feb. 24	LYWOOD, EDWIN	Norman Court, Clatford, Andover, Hants.
1891, Nov. 4	MACCALLUM, ALEXANDER DUNCAN	12, St. Vincent Place, Glasgow.
1899, Feb. 16	MCCALLUM, JAMES	Town Hall, Motherwell, Lanarkshire.
A. 1894, Oct. 30 F. 1896, Sept. 23	*MCCARTHY, HENRY ROBERT ...	67, Crouch Hill, N.
1896, June 2	M'CLINTOCK, ARTHUR	Rathoinden, Leighlinbridge, Co. Carlow.
1895, Sept. 2	MCCLINTOCK, CHARLES EDWARD LIEUT-COL.	Glendaragh, Crumlin, Co. Antrim.
1891, Nov. 4	MCCRACKEN, WILLIAM	Englesea House, Crewe.
1895, Sept. 2	MCCULLAGH, JAMES W.	Glasslough, Co. Monaghan.
1895, Sept. 2	MCDONALD, ALLAN, M.A. (*Dublin*)	Glenarm, Co. Antrim.
1899, Feb. 16	MACDONALD, RANALD RODERICK	16, Union Terrace, Aberdeen.
1891, May 23	MACDOUGALL, ROBERT	138, West Regent Street, Glasgow.
1891, Nov. 4	MCINTYRE, PETER	Gwydyr Ucha, Llanrwst, North Wales.
1889, Apr. 1	MACIVER, COLIN	23, Bold Street, Warrington, Lancashire.
1899, Feb. 16	MACKENZIE, DONALD FALCONER	Estate Office, Mortonhall, Liberton, Midlothian.
1889, Apr. 29	MCLEAN, DONALD	Dunrobin Estate Office, Golspie, Sutherlandshire.
1899, Feb. 16	MACLENNAN, WILLIAM	Grainbank, Kirkwall, Orkney Islands.
1895, Oct. 24	*MACNICOLL, DOUGLAS HENRY ...	Derwas, Abergele, Denbighshire.
1899, Feb. 16	MACPHERSON, WILLIAM	Montrose Estates Office, Catter House, Drymen, Stirlingshire.
A. 1893, Oct. 4 F. 1896, Oct. 1	MADDOX, HARRY EDWARD	c/o George Maddox, Cottesmore, Gainsborough Gardens, Hampstead Heath, N.W.
1891, Nov. 4	‡MADGE, JOHN	Somerset House, Chard, Somersetshire.
1896, Jan. 21	MAHON, GEORGE GILBERT	The Rent Office, Ahascragh, Co. Galway.
1897, Oct. 26	MAKINS, WILLIAM ALEXANDER ...	79, West Regent Street, Glasgow.
1891, Nov. 4	MALLETT, WILLIAM ROBERT ...	8, Bream's Buildings, Chancery Lane, E.C.
1899, Jan. 25	MANN, CHARLES JOHN	29, Great George Street, S.W.
1891, Nov. 4	MANN, JABEZ, A.M.I.C.E.	Sevenoaks, Kent.
1890, Apr. 14	MANN, JAMES BAGSHAW	12, Lower Grosvenor Place, S.W.
A. 1889, Jan. 14 F. 1893, Feb. 6	*MANN, ROBERT BAGSHAW	29, Great George Street, S.W.

‡ Special Forestry Certificate.

Dip. No.	Date of Election and of Transfer.	FELLOWS.	Address.
1946	1891, Jan. 17	MANNERS, HENRY ALFRED	23, St. Peter's Hill, Grantham, L colnshire.
1616	1889, Apr. 1	MARGERESON, CHARLES FREDERIC	New Square, Chesterfield, Derbyshir
1362	1887, Jan. 24	MARGETTS, JOHN WILLIAM... ...	12, High Street, Warwick.
1947	1891, Jan. 17	MARKS, HYMAN	19, Ludgate Hill, E.C.
2839	1895, Sept. 2	MARMION, THOMAS HENRY ...	Estates Office, Cappoquin, Co. Waterfo
192	1869, Mar. 22	MARR, JAMES	8, Adam Street, Adelphi, W.C.
3639	1900, Oct. 30	*MARRIOTT, ARTHUR SUTCLIFFE	West Park Street, Dewsbury, Yorksh
470	A. 1877, Jan. 15 F. 1889, Dec. 9	MARRIOTT, GEORGE WHARTON ...	13, St. George's Road, S.W.
626	A. 1881, Nov. 14 F. 1884, Nov. 10	MARSHALL, LIONEL HASLER ...	Chippenham, Wilts.
1785	1890, Apr. 14	MARSHALL, PETER	3, Hartshead, Sheffield, Yorkshire.
2631	A. 1894, Feb. 23 F. 1897, Oct. 4	*MARTIN, ALFRED JOHN	c/o Rawlence and Squarey, 15, Gr George Street. S.W.
976	1883, Nov. 12	MARTIN, GEORGE DENNIS	3, Pall Mall East, S.W.
434	1876, Mar. 20	MARTIN, GILSON	Chatsworth, Chesterfield, Derbyshir
1555	A. 1889, Jan. 14 F. 1896, Jan. 6	*MARTIN, HEBER GAMBLING ...	Littleport, Isle of Ely, Cambridgeshi
364	1875, Jan. 4	MARTIN, HOWARD ... ... *(Member of Council)*	27, Chancery Lane, W.C., and Elst Nutfield, Surrey.
1649	1889, Dec. 9	MARTIN, ROBERT FREWEN... ...	Mountsorrel, Loughborough, Leices shire.
2595	A. 1893, Oct. 4 F. 1898, Mar. 21	*MARTIN, SAMUEL...	27, Chancery Lane, W.C.
1533	A. 1888, Dec. 10 F. 1892, July 4	*‡MARTIN, THOMAS	Hampden Club, Phœnix Street, N. and "Senlac," Baldslow R Hastings, Sussex.
1589	1889, Feb. 25	MARVIN, ALBERT EDWARD ...	Marl Hill, Carisbrooke, Isle of Wigh
3478	1899, Feb. 16	MARWICK, THOMAS PURVES ...	43, York Place, Edinburgh.
1598	1889, Mar. 4	MASON, CHARLES	Westgate, Louth, Lincolnshire.
1091	1884, Feb. 11	MASON, WILLIAM ARTHUR... ...	31A, Colmore Row, Birmingham.
1288	A. 1885, Dec. 7 F. 1888, Nov. 12	*MASSIE, FRANK, A.M.I.C.E. ...	Tetley House, Kirkgate, Wakef Yorkshire.
696	1882, Jan 16	MASTERMAN, GEORGE HUGHES ...	35, Coleman Street, E.C.
3715	A. 1900, Oct. 30 F. 1901, Nov. 25	*MATHER, JAMES	Strabane, Brodick, N.B.
995	1883, Dec. 17	MATHEWS, JOSEPH DOUGLASS, F.R.I.B.A.	11, Dowgate Hill, E.C.
2596	A. 1893, Oct. 4 F. 1896, Apr. 13	*MATHEWS, LEWIS OSLER, M.A. (*Cantab.*)	15, Waterloo Street, Birmingham.
3570	A. 1899, Oct. 30 F. 1900, Oct. 1	*MATTHEWS, DOUGLAS SAMUEL ...	Gwydir Chambers, 104, High Holb W.C.
2840	1895, Sept. 2	MAUDE, ANTHONY FRITZ	Hillsborough, Co. Down.
2842	1895, Sept. 2	MAUDE, CHRISTOPHER HUGH ...	Lenaghan, Enniskillen, Co. Fermana
2841	1895, Sept. 2	MAUDE, MAURICE...	Lenaghan, Enniskillen, Co. Fermana
2843	1895, Sept. 2	MAUNSELL, RICHARD EDWARD ...	9, Ely Place, Dublin.

‡ Special Forestry Certificate

Date of Election and of Transfer.	FELLOWS.	Address.
A. 1901, Oct. 29 F. 1902, Sept. 30	*MAXWELL, DAVID BENJAMIN ...	Shrubland Park, Coddenham, Ipsw Suffolk.
A. 1887, Jan. 10 F. 1890, Jan. 6	*MAXWELL, FRANCIS WILLIAM ...	41, Corporation Street, Manchester.
1895, Sept. 2	MAXWELL, HENRY PERCEVAL ...	Lansdowne Lodge, Kenmare, Co. Ke
1898, Oct. 29	*MAXWELL, JOSEPH ARCHIBALD...	21, Marlborough Road, Banbury, Ox shire.
1897, Oct. 26	MAY, FRANCIS JOHN CHARLES...	Town Hall, Brighton, Sussex.
1891, Nov. 4	MAY, THOMAS HENRY	Haslin House, Harpur Hill, Bu Derbyshire.
A. 1899, Oct. 30 F. 1903, May 18	*MEABY, THOMAS JAMES, JUN. ...	Cockington, Near Torquay, Devons
1891, Jan. 17	MEADE, THOMAS DE COURCY, M.I.C.E.	The Town Hall, Manchester.
A. 1892, Nov. 28 F. 1893, Aug. 9	*MELLENFIELD, JAMES HENRY ...	517, Hackney Road, N.E.
1891, May 23	MELLER, WILLIAM GALLOWAY ...	22, Cooper Street, Manchester.
1879, Dec. 8	MELLERSH, ALFRED WILLIAM ...	Godalming, Surrey.
1891, Jan. 17	MELLOR, THOMAS HENRY	1, Laurence Pountney Hill, E.C.
A. 1888, Jan. 23 F. 1902, Sept. 30	*†MELROSE, FRANK	14, Queen Street, Cheapside, E.C.
1887, Mar. 7	MENZIES, WILLIAM	Golspie, Englefield Green, Surrey.
A. 1894, Oct. 30 F. 1897, June 28	*MERCER, CHARLES EDWARD ...	Estate Office, S.E. Railway, Tooley London Bridge Station, S.E.
A. 1899, Oct. 30 F. 1903, Sept 28	*MERRICK, FREDERICK WALTER	Stanwell Moor, Staines, Middlesex.
A. 1891, Jan. 17 F. 1894, Dec. 10	*MERRY, ARTHUR WALKER ...	17, High Street, Leighton Buzzard.
1891, May 23	MERRY, THOMAS	2, Guildhall Road, Northampton.
1894, Oct. 30	*MESSENGER, HENRY	77, Chancery Lane, W.C.
1882, Feb. 27	MESSENGER, WILLIAM HARRY ...	Town Hall Chambers, Guildford, Su
1884, Dec. 8	*‡MICHELMORE, ALFRED	Berry Pomeroy Estate Office, To Devon.
1888, Nov. 12	MIDDLETON, REGINALD EMPSON...	17, Victoria Street, S.W.
1891, Nov. 4	MIGOTTI, ALPHONZO, A.R.I.B.A.	4, St. George's Mansions, Red Square, W.C.
1882, Jan. 16	MILLAR, CHARLES WILLIAM ...	46, Pall Mall, S.W.
1891, Nov. 4	MILLAR, WILLIAM GALT	Friar Street, Reading, Berks.
1891, Nov. 4	MILLARD, EDWARD	47, Finsbury Circus, E.C.
1896, Oct. 28	*MILLER, JOHN EZRA, A.M.I.C.E.	17, Fawcett Street, Sunderland, Durl
A. 1891, Oct 30 F. 1893, Dec. 7	*MILLS, ARTHUR ERNEST	General Valuation Office, 6, Fly Pl Dublin.
1884, May 19	MILLS, SAMUEL MEALING	Orford Hill, Norwich, Norfolk.
1886, Feb. 22	MILLS, WILLIAM EDWARD	57, Hamilton Square, Birkenh Cheshire.
1891, Nov. 4	MILLYARD, JOHN WILLIAM ...	Estate Office, Saltmarshe Castle Bromyard, Herefordshire.
A. 1891, Nov. 4 F. 1892, Oct. 12	*MITCHELL, GEORGE SHARMAN ...	Upper Adhurst, Petersfield, Hants.
A. 1884, Dec. 8 F. 1890, Nov. 10	*MIXER, EDWARD	44, Charing Cross, S.W.

† Special Sanitary Science Certificate.
‡ Special Forestry Certificate.

D.p. No.	Date of Election and of Transfer.	FELLOWS.	Address.
1718	1890, Feb. 10	MONCKTON, HENRY PERCIVAL, F.R.I.B.A.	32, Walbrook, E.C.
2330	1891, Nov. 4	MONIER - WILLIAMS, STANLEY FAITHFULL, A.R.I.B.A.	Bank Chambers, Forest Hill, S.E.
1951	1891, Jan. 17	MONTAGU, HENRY HAVELOCK ...	36, Coleman Street, E.C.
1771	1890, Mar. 24	MOODY, THOMAS	30, Cockspur Street, S.W.
1576	1889, Feb. 11	MOORE, ALFRED	144, Mile End Road, E., and 7, Lead hall Street, E.C.
1165	A. 1884, May 5 F 1888, May 14	*MOORE, HAROLD EDWARD	41, Bedford Row, W.C.
2331	1891, Nov. 4	MORGAN, BENJAMIN BRAUFORD	6, Bank Street, Norwich, Norfolk.
1772	1890, Mar. 24	MORRIS, CHARLES	The Lodge, Radcliffe-on-Trent, Notts. 27, Bridlesmith Gate, Nottingham.
1443	1888, Jan. 23	MORRIS, EDWARD HENRY	Chirbury, Salop.
2101	1891, May 23	MORRIS, GEORGE FIELD	Madeira, Cambridge Park, Wanste Essex.
2332	1891, Nov. 4	MORRIS, HAROLD GEORGE	67 and 68, Cheapside, E.C.
1119	1884, Mar. 10	MORRIS, HERBERT	Lewes, Sussex.
2538	A. 1892, Nov. 28 F. 1891, Oct. 10	*MORRIS, RICHARD PERCIVAL ...	15, Castellain Mansions, Castell Road, Maida Vale, W.
2699	A. 1894, Oct. 30 F. 1899, Oct. 2	*MORRIS, WILLIAM HENRY ...	Monksfield, Chirbury, Shropshire.
1127	A. 1884, Mar. 10 F. 1891, Jan. 5	MOSS, THOMAS WALTER	7, Gray's Inn Place, Gray's Inn, W.C
1895	A. 1890, Nov. 22 F. 1893, Apr. 10	*MOULD, GRAHAM HARLEY ...	3, John Street, Bedford Row, W.C.
3065	1896, Oct. 28	MOXON, HERBERT WILLIAM ...	Royal Engineer Office, Hong Kong.
965	A. 1883, May 25 F. 1891, Oct. 15	MOYES, JOHN HELENUS	66, St. Andrew's Street, Cambridge.
2145	A. 1891, May 23 F. 1892, May 30	*MÜLLER, JOHN JOSEPH, A.R.I.B.A.	6, Melrose Avenue, Cricklewood, N.
2017	1891, Mar. 14	MUNDY, HERBERT	Manvers Street, Trowbridge, Wilts.
2334	1891, Nov. 4	MUNDY, THOMAS EDWARD, A.R.I.B.A	12, Buckingham Street, Adelphi, W.C
2335	1891, Nov. 4	MUNRO, DANIEL	39, Hope Street, Glasgow.
765	1882, Feb. 27	MUNRO, PHILIP	2, St. Stephen's Chambers, New Bald Street, Bristol.
3325	1898, Oct. 29	MURDOCK, ROBERT	91, Maxwell Road, Glasgow.
2845	1895 Sept. 2	MURPHY, JAMES FRASER, MAJOR	Estate Office, Boyle, Co. Roscommon
3479	1899, Feb. 16	MURRAY, JOHN CAMPBELL	Pollock Estate Office, 53, Bothwell Glasgow.
3480	1899, Feb. 16	MURRAY, JOSEPH	Camperdown Estates Office, Drybu Lochee, Forfarshire.
1952	1891, Jan. 17	MURRAY, WILLIAM	School Board Offices, Victoria Emb ment, W.C.
3481	1899, Feb. 16	MURRAY, WILLIAM WATSON ...	Catter House, Drymen, Stirlingshire

Date of Election and of Transfer.	FELLOWS.	Address.
1891, Nov. 4	MYRES, JOHN JAMES, A.M.I.C.E.	15, Chapel Street, Preston, Lancashire.
1882, Feb. 25	NAPIER, HENRY BURROUGHES ...	Ashton Court Estate Office, Long Ashton, Clifton, Bristol.
A. 1879, Jan. 25 F. 1882, Mar. 13	NASH, ALFRED JAMES	Farnham, Surrey.
1891, Mar. 14	NEALE, GEORGE JAMES	13, Lowndes Street, Belgravia, S.W.
1879, Feb. 3	NEAME, FREDERICK	Macknade, Faversham, Kent.
1882, Apr. 24	NEATE, ARTHUR WEBB	Albion House, Newbury, Berks, and Hungerford.
A. 1902, Oct. 28 F. 1904, June 28	*NEILL, JAMES NEILL	38, Park Row, Leeds, Yorkshire.
A. 1898, Oct. 29 F. 1900, Feb. 12	*NESBITT, JOHN OSCAR	12, Limefield Terrace, Rushford Park, Levenshulme, Manchester.
1891, Nov. 4	NEVETT, FRANCIS WALTER	34, Brackenbury Road, Preston, Lancashire.
1889, Dec. 9	NEVETT, THOMAS	41, Fishergate, Preston, Lancashire.
1891, May 23	NEW, EDW. VORLEY, A.R.I.B.A.	62, George Street, Portman Square, W.
1890, Feb. 10	NEWILL, ROBERT HENRY	Lydbury North, Shropshire.
1885, Dec. 7	NEWMAN, ARTHUR HARRISON, F.R.I.B.A.	19A, Tooley St., London Bridge, S.E.
A. 1882, Dec. 18 F. 1889, Nov. 11	NEWMAN, CHARLES HENRY ...	45 & 46, New Bond Street, W.
A. 1892, Nov. 28 F. 1894, Oct. 10	*NEWMAN, SAMUEL FRANK	33 and 34, Savile Row, W.
1891, Nov. 4	NEWMAN, THOMAS HARRY	Rayne, Essex.
A. 1880, Jan. 19 F. 1886, Apr. 12	NEWMARCH, HENRY CHARLES ...	61, Lincoln's Inn Fields, W.C.
1895, Sept. 2	NEWPORT, GEORGE BELLINGHAM	Rockview, Inistioge, Co. Kilkenny.
1882, Feb. 13	NEWSON, HARRY CARSS	57, Lincoln's Inn Fields, W.C.
A. 1896, Oct. 28 F. 1899, Mar. 20	*NEWTON, EDWIN BENNETT BRIERLEY, A.M.I.C.E.	Town Hall, Paddington, W.
A. 1883, Dec. 17 F. 1889, Nov. 11	NEWTON, THOMAS EDWIN	Bank Chambers, Winchester, Hants.
1901, Oct. 29	NICHOLLS, EDWARD ALFRED ...	Royal Engineer Office, Hong Kong, China.
1891, Nov. 4	NICHOLSON, WILLIAM ABERNETHY	105, Cheapside, E.C.
1898, Feb. 18	NISBET, JOHN...	Royal Societies Club, 63, St. James Street, S.W.
1892, Feb. 26	NOCK, BENJAMIN BOWEN	48, Queen Street, Wolverhampton, Staffordshire.
A. 1891, Jan. 17 F. 1901, Apr. 29	*NOCKOLDS, ALFRED GEORGE ...	Saffron Walden, Essex.
1875, Apr. 26	NOCKOLDS, MARTIN	Saffron Walden, Essex.
1885, Mar. 23	NOEL, BYRON BRUCE	Ockham, Ripley, Surrey.
1875, Mar. 20	NORMAN, JAMES MAURICE	Uxbridge, Middlesex.
1888, July 20	NORTH, GEORGE	Palace Chambers, 9, Bridge Street, S.W.
1883, May 25	*NORTH, GEORGE FREDERIC... ...	Strathfield Saye, Mortimer, Berks.
1889, Jan. 28	NORTHCROFT, HENRY	9, Regent Street, S.W.

Dip. No.	Date of Election and of Transfer.	FELLOWS.	Address.
2019	1891, Mar. 14	NORTON, THOMAS HERBERT, B.A. (*Oxon.*)	10, Little College Street, Westminster S.W.
255	1871, Feb. 13	NOTLEY, RICHARD ALBERT... ...	80, Cornhill, E.C.
698	1882, Jan. 16	NOTLEY, ROBERT PLEDGE, F.R.I.B.A.	35, Bucklersbury, E.C.
676	A. 1881, Dec. 19 F. 1887, Feb. 7	NOTTAGE, WILLIAM GRIGGS ...	Land Registry (Survey Department) 4, Clement's Inn, W.C.
2847	1895, Sept. 2	NUNN, WILLIAM BOLTON	George Street, Wexford, & Castlebridge
1978	A. 1895, Oct. 24 F. 1898, May 2	*NUTTALL, HERBERT	20, Market Street, Bury, Lancashire.
1465	A. 1891, Nov. 4 F. 1894, Oct. 10	*OAKLEY, CHRISTOPHER PERCIVAL	10, Waterloo Place, S.W.
2020	1891, Mar. 14	OAKLEY, EDWARD BENJAMIN ...	Westville, Parkstone, Dorset.
1975	A. 1891, Jan. 17 F. 1892, Dec. 5	*OAKLEY, JOHN HUBERT	10, Waterloo Place, S.W.
1577	A. 1899. Oct. 30 F. 1901, Apr. 29	*O'BRIEN, DONOUGH RICHARD ...	16, Upper Mallow Street, Limerick Ireland.
1976	A. 1891, Jan. 17 F. 1894, Jan. 22	*OGDEN, MICHAEL GUY	4, Hill Road, Wimbledon, S.W.
1249	A. 1897, Oct. 26 F. 1899, Oct. 2	*OGILVIE, ROBERT MATHEWSON	Hayward's Heath, Sussex.
1775	1901, Oct. 29	OLDRIEVE, WILLIAM THOMAS ...	H.M. Office of Works, Edinburgh.
1468	1888, Mar. 5	OLDROYD, LINLEY...	Holm Lea, Cromwell Road, Scarborough Yorkshire.
2341	1891, Nov. 4	OLIPHANT, GEORGE A. J.	The Grange, Shrewton, Wiltshire.
2342	1891, Nov. 4	OLIVER, CHARLES EDWARD ...	Selby Lodge, Consett, Co. Durham.
1306	1886. Feb. 22	ORGILL, JOHN BERWICK	21, Hart St., Bloomsbury Square, W.C.
2343	1891, Nov. 4	ORR, CECIL, A.R.I.B.A.	71, Otter Street, Derby.
3051	A. 1896, June 2 F. 1899, June 26	*OSENTON, CHARLES	Leatherhead, Surrey.
1896	A. 1890, Nov. 22 F. 1892, Nov. 14	*OSENTON, GEORGE...	Stone Corner Farm, near Tenterden Kent.
2850	1895, Sept. 2	OWEN, ARTHUR JOHN	Shanvaghey, Ballacolla, Queen's County
1721	1890, Feb. 10	OWEN, HENRY	Dana Chambers, Shrewsbury, Shropshire
1098	A. 1884, Feb. 11 F. 1890, Jan. 6	OWEN, THOMAS HENRY RULE ...	High St., Haverfordwest, Pembrokeshire
183	1869, Mar. 8	OWEN, THOMAS RULE	High St., Haverfordwest, Pembrokeshire
1628	1889, Nov. 11	OWEN, WILLIAM SCOTT	Cefngwifed, near Newtown, Montgomeryshire.
2021	1891, Mar. 14	PAGE, GEORGE FREDERICK... ...	Eagle Chambers, Kingston-on-Thames.
1912	1884, Jan. 14	PAGE, ROBERT, F.R.I.B.A.	9, Denman Street, London Bridge, S.E.
2702	A. 1894, Oct. 30 F. 1898, Jan. 24	*†PAGE, STANLEY HATCH	6, Queen Street, Ramsgate, Kent.
406	A. 1875, Nov. 8 F. 1881, Apr. 4	PAIN, COARD SQUAREY...	14, North John Street, Liverpool.
2601	A 1893, Oct. 4 F 1897, June 28	*PAIN, GEORGE LLOYD	Keysworth Farm, Wareham, Dorset.
966	A. 1883, May 25 F. 1891, Oct. 10	*PAIN, JAMES	48, West Street, Fareham, Hants.

† Special Sanitary Science Certificate.

Date of Election and of Transfer.	FELLOWS.	Address.
A. 1888, Dec. 10 F. 1892, Oct. 12	*‡PALAMOUNTAIN, JOSEPH WM. ...	Cloverley Estate Office, Whitchurch, Salop.
A. 1903, Oct. 28 F. 1904, June 28	*PALMER, FREDERICK CHARLES RICHARD	H.M. Office of Works, Storey's Gate, S.W.
A. 1892, Feb 26 F. 1901, July 2	*PALMER, WILLIAM EDWARD KING, A.R.I.B.A.	Huntingdon Lodge, New Malden, Surrey.
1890, May 29	PARK, PHILIP	Altadore, Preston, Lancashire.
1887 Mar. 21	PARKER, CHARLES ALFRED... ...	21, Finsbury Circus, E.C., and Woodham Mortimer Place, Maldon, Essex.
1885, May 18	PARKER, JOHN, A.M.I.C.E.	Mansion House, Hereford.
1891, Nov. 4	PARKER, STANLEY...	Birkbeck Bank Chambers, High Holborn, W.C.
A. 1889, Jan. 19 F. 1888, Jan. 9	PARKER, THE HON. CECIL THOMAS	Eccleston, Chester.
1890, Nov. 22	PARKER, WILLIAM HENRY	3, Foregate Street, Worcester.
1890, Nov. 22	PARKIN, WILLIAM...	Babworth, Retford, Notts.
1883, Jan. 15	PARMETER, FRANK	Middle Lees, Clitheroe, Lancashire.
1891, May 23	PARNACOTT, ALFRED	93, York Road, Westminster Bridge Road, S.E., & The Ferns, Laurel Grove, Penge, S.E.
1883, Mar. 12	PARR, SAMUEL	New Broad Street House, E.C.
1891, Mar. 14	PARR, SAMUEL GEORGE	New Broad Street House, E.C.
A. 1889, Dec. 9 F. 1893, Nov. 13	*PARRIS, CHARLES JOHN	65, High Street, Tunbridge Wells, Kent, and Beechwood, Crowborough, Sussex.
A. 1887, Dec. 19 F. 1891, Mar. 16	*PARRY, RICHARD, A.M.I.C.E. ...	82, Victoria Street, S.W.
A. 1894, Oct. 20 F. 1900, Oct. 1	*PARRY, RICHARD FREDERICK ...	Cheddar, Somersetshire.
1888, Nov. 26	PARSONS, FRANK DONISTHORPE...	The Mill, Milton, Melplash, R.S.O., Dorsetshire.
1890, Nov. 22	PARSONS, FREDERICK CECIL ...	163, North Street, Brighton.
1890, Mar. 10	PARSONS, HENRY JOHN DONNE ...	21, Southernhay West, Exeter.
A. 1883, May 25 F. 1888, Dec. 10	PARSONS, ROBERT MAURICE PETERS	Misterton, Crewkerne, Somersetshire.
A. 1890, Nov. 22 F. 1894, Oct. 10	*PARTRIDGE, EDWARD JOHN... ...	Bank Chambers, 39, George Street, Richmond, Surrey, & 50, Lincoln's Inn Fields, W.C.
A. 1896, Oct. 28 F. 1899, Mar. 20	*PATCH, SHIRLEY HUTCHINS ...	The Chestnuts, Havelock Road, Addiscombe.
1890, Feb. 24	PATERSON, CHARLES	Canford Estate Office, Wimborne, Dorsetshire.
A. 1883, May 25 F. 1888, May 14	*PAULL, ALAN	6, Quality Court, Chancery Lane, W.C.
1880, Dec. 13	PAYNE, ALEXANDER, F.R.I.B.A. ...	Norfolk House, Victoria Embankment, W.C.
1882, Jan. 30	PAYNE, FREDERICK	10, Market Square, Bromley, Kent.
A. 1901, Oct. 29 F. 1902, Dec. 8	*PEACE, JOHN CHALMERS	The Villas, Meole Brace, Shrewsbury.
A. 1893, Oct. 4 F. 1898, Jan. 24	*PEARCE, FRED W....	Surveyor's Office, Town Hall, Twickenham.

‡ Special Forestry Certificate.

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2350	1891, Nov. 4	PEARD, JOHN GRIGG	North Curry, near Taunton, Somer shire.
3117	A. 1896, Oct. 28 F. 1901, Feb. 11	*PEARSE, OCTAVIUS BURROUGHES	The Bourne, Tettenhall, Wolverhampt
2351	1891, Nov. 4	PEARSE, WILLIAM	Stoliford, Modbury, Devon.
2981	A. 1895, Oct. 24 F. 1896, Oct. 1	*PEARSON, HARRY JOHN, A.R.I.B.A.	Architectural Department, Local Gove ment Board, Whitehall, S.W.
2603	A. 1893, Oct. 4 F. 1898, Jan. 10	*PEARSON, T. HOWARD...	52, Ventnor Villas, Hove, Sussex, d Gray's Inn Place, W.C.
1370	1885 May 18	PECK, WILLIAM ROLAND	2 & 3, Cockspur Street, S.W.
2353	1891, Nov. 4	PEIRSON, GEORGE BRODRICK ...	Baldersby, S.O., Yorkshire.
2354	1891, Nov. 4	PEIRSON, HENRY THOMAS	Brancepeth, Co. Durham.
2105	1891, May 23	PELLS, ARTHUR	Beccles and Lowestoft, Suffolk.
1651	1889, Dec. 9	PEMBERTON, CHARLES OLIVER PAGET	69, Temple Row, Birmingham.
21	1868, June 15	PENFOLD, JOHN WORNHAM, F.R.I.B.A. (*Vice-President*) ...	34, Great George Street, S.W.
2352	1895, Sept. 2	PENROSE, JAMES EDWARD	Estate Office, Lismore Castle, Lismor
3013	1896, Jan. 21	PENROSE, WILLIAM ROBERT ...	Bessborough Estate Office, Piltown, Kilkenny.
452	1876, May 8	PEPPERCORN, JOHN HUTCHINSON	Manor House, Eaton Socon, St. Neot
2355	1891, Nov. 4	PERKINS, JOSEPH	Frisby-on-the-Wreake, Leicester.
1341	A. 1886, Dec. 6 F. 1891, May 25	*PERKINS, WALTER FRANK	The Auction Mart, Southampton, Ha
2106	1891, May 23	PERRIAM, ALFRED JOSEPH	43, Cannon St., E.C., & "Verona Hous Station Avenue, Herne Bay, Kent.
1252	1835, Feb. 9	*PETO, JAMES WINDER	6, Market Place, Reading, Berks.
3881	A. 1901, Oct. 29 F. 1902, Dec. 8	*PETTER, ALBERT EDWARD... ...	City Valuer's Office, Council Ho Bristol, Gloucestershire.
428	1876, Feb. 21	PHILLIPS, FREDERICK HAMILTON	Beechcroft, Temple Ewell, near Do Kent.
1652	1889, Dec. 9	PHILLIPS, WILLIAM EDWIN	Eagle Chambers, Kingston-on-Thame
1013	1884, Jan. 14	PICKERING, WILLIAM CLOVES ...	Rhewl House, Mostyn, Flintshire.
2357	1891, Nov. 4	PIERCY, HENRY ONSLOW	The Elms, Lowthorpe.
1617	1889, Apr. 1	PIERSON, CHARLES	29, Cooper Street, Manchester.
938	A. 1883, May 25 F. 1886, Nov. 8	*†PILDITCH, PHILIP EDWARD ...	2, Pall Mall East, Charing Cross, S
1899	A. 1890, Nov. 22 F. 1901, July 2	*PINDER, RICHMOND	49, Upper Baker Street, N.W.
3253	A. 1897, Oct. 26 F. 1900, Oct. 1	*PINEGER, JAMES REGINALD ...	6, Mount Street, Grosvenor Square,
1701	1890, Jan. 27	PINKS, EDWIN CHARLES	Parliament Mansions, Victoria S S.W.
3119	A. 1896, Oct. 28 F. 1897, Oct. 4	*PINNEY, FREDERICK WYLDBORE DIGBY	6, Waterloo Street, Birmingham.
2023	1891, Mar. 14	POPPLE, JOHN...	19, St. Hilda's Terrace, Whitby, Y shire.
2359	1891, Nov. 4	PORTER, JOHN MERRY...	Estate Office, Colwyn Bay, North W

† Special Sanitary Science Certificate.

Date of Election and of Transfer.	FELLOWS.	Address.
1891, Nov. 4	POSTON, HENRY	39, Lombard Street, E.C.
A. 1891 Jan. 17 F. 1894. Nov. 12	*POTTER, HERBERT GEORGE... ...	28, Rosslyn Hill, Hampstead, N.W.
1891, Nov. 4	POTTS, JAMES...	Estate Office, Workington, Cumberland.
1870, Jan. 24	POUNDLEY, JOHN EDWARD	Kerry, Newtown, Montgomeryshire.
A. 1894, Oct. 30 F. 1896, Oct. 3	*POWELL, CHARLES REGINALD EVERNDEN	Bridge Chambers, Bideford, Devonshire.
1890, Nov. 22	POWELL, FREDERICK ATKINSON, F.R.I.B.A.	344, Kennington Park Road, S.E., and Agincourt Square, Monmouth.
A. 1883, Dec. 17 F. 1891, Mar. 2	POWELL, HUBERT JOHN	Hill Lodge, Lewes, Sussex.
A. 1874, Feb. 16 F. 1880, Nov. 22	POWELL, REGINALD HENRY ...	St. Swithun's Lane, High Street, Lewes, Sussex.
1896, June 2	POWELL, ROBERT	Estate Office, Westport, Co. Mayo.
A. 1892. Nov. 28 F. 1896, June 26	*PRALL, HERBERT ALEXANDER ...	Martin's Bank Chambers, Dartford, and 150, Eastgate, Rochester, Kent.
1891, Nov. 4	PREEDY, FREDERIC	Caldecote, St. Neots, Huntingdonshire.
A. 1888. Dec. 10 F. 1892, Dec. 5	*PRESTON, SAMUEL DAVID	Town Hall, Camberwell, S.E.
1890, Apr. 14	PRICE, FRANCIS HOLBORROW GLYNN	7, Picton Place, Swansea, Glamorganshire.
1891, Nov. 4	PRICE, JOHN, M.I.C.E.	The Council House, Birmingham.
A. 1892, Nov. 28 F. 1895, Nov. 1	*PRICE, RICHARD ARNOLD	18, Rodenhurst Road, Clapham Park, S.W.
1891, May 23	PRIDMORE, ALBERT EDWARD ...	2, Broad Street Buildings, E.C., and 28, High Street, Watford, Herts.
1880, Nov. 22	PRIDMORE, ARTHUR STIRLING ...	140, Junction Road, N.
A. 1894, Oct. 30 F. 1899, Mar. 20	*PRITCHARD, HERBERT ALFRED ...	The Laurels, Swansea, Glamorganshire.
1890, May, 29	PRITCHETT, ELLIS HERBERT ...	Regent Circus, Swindon, Wilts.
A. 1900, Feb. 23 F. 1903, Dec. 7	*PROTHEROE, ALFRED ERNEST ...	67 and 68, Cheapside, E.C.
A. 1894, Oct. 30 F. 1900, Oct. 1	*PUGH-JONES, DAVID	Hawthorn, Llandaff, Glamorganshire.
1885, Nov. 9	PUNCHARD, FREDERICK	Underley Estate Office, Kirkby Lonsdale, Westmoreland.
A. 1889, Jan. 6 F. 1895, Feb. 18	*PUNCHARD, FREDERICK BURT ...	Fairbank, Kirkby Lonsdale, Westmoreland.
1895, Sept. 2	PURCELL, WILLS W.	Clydavale, Mallow, Co. Cork.
A. 1884, Jan. 28 F. 1889, Jan. 28	PURCHASE, EDWARD KEYNES ...	Mansion House Chambers, 11, Queen Victoria Street, E.C.
1898, Feb. 18	PURDIE, ANTHONY	241, West George Street, Glasgow.
A. 1895, Oct. 24 F. 1897, Jan. 11	*PURVIS, CHARLES JAMES	Deptford Bridge, S.E.
A. 1896, Oct. 28 F. 1903, Sept. 28	*PYLE, BENJAMIN THOMAS RICE	96, Plum Lane, Plumstead, S.E.
1897, Sept 2	QUIN, RICHARD	9, Crosthwaite Park West, Kingstown, Ireland.

Dip. No.	Date of Election and of Transfer.	FELLOWS.	Address.
2856	1895, Sept. 2	QUIN, WILLIAM THOMAS CUFFE...	Kilbeggan, Co. Westmeath.
3727	A. 1900, Oct. 30 F. 1901, Nov. 25	*RAFFETY, HAROLD VRZEY... ...	55, Pall Mall, S.W.
2635	A. 1894, Feb. 23 F. 1896, Oct. 1	*RAFFETY, HERBERT WILLIAM ...	55, Pall Mall, S.W.
1462	1888, Feb. 20	RAIKES, COLONEL GEORGE WHITTINGTON	Ragley Estate Office, Alcester, Warwi shire.
3066	1896, Oct. 28	RAVES, BERTRAM ADAMS, A.M.I.C.E.	Royal Engineer Office, North Aldersh Hampshire.
902	1883, Feb. 26	RAWLENCE, ERNEST ALFRED ...	Newlands, Salisbury, Wilts.
2026	1891, Mar. 14	RAWLENCE, JAMES EDWARD ...	The Canal, Salisbury, Wilts.
1859	1890, Nov. 22	RAWLINS, HENRY ADAIR, A.R.I.B.A.	46, Queen Victoria Street, E.C.
2367	1891, Nov. 4	RAWLINS, WILLIAM	45, King William Street, E.C.
134	1868, Oct. 26	RAYNBIRD, HUGH EDWARD ...	Basingstoke, Hants.
1516	1888, Dec. 10	REA, JOHN MARCUS BEAUMONT...	8, Winckley Street, Preston, and Lyth Lancashire.
3329	1898, Oct. 29	REA, JOHN TODD	Royal Engineer Office, Pearl's H Singapore.
1139	1884, Apr. 21	READ, GEORGE HUNTLY	27, Albany Street, N.W.
2109	1891, May 23	REBBECK, EDWARD WISE	Stafford Lodge, Bournemouth, Hants.
2368	1891, Nov. 4	REBBECK, THOMAS WARREN ...	Gervis Place, Bournemouth, Hants.
1860	1890, Nov 22	REES, ITHEL TREHARNE, M.I.C.E.	Guildhall Chambers, Cardiff, Glamorg shire.
584	1880, Dec. 13	REES, WILLIAM ANDREW	7, Cornhill, E.C.
544	1879, Apr. 28	REES, WILLIAM GEORGE	Holly House, Newport, Monmouthshi
2369	1891, Nov. 4	REES, WILLIAM JOHN	The Laurels, Swansea, Glamorganshi
2370	1891, Nov. 4	REEVE, KINGSNORTH	27, High Street, Rye, Sussex, and H Street, Lydd, Kent.
3121	A. 1896, Oct. 28 F. 1897, Oct. 4	*†REFFELL, CHARLES ARTHUR ...	8, Alwyne Villas, Maybury Rd., Woki Surrey.
3334	1898, Oct. 29	*REID, ARTHUR FLETCHER	5, Clement's Inn, Strand, W.C.
937	1883, Apr. 30	RENDELL, ARTHUR STEPHEN ...	Market Terrace, Newton Abbot, Dev
3071	1896, Oct. 28	*RENTON, GEORGE	1, Albert Street, Harrogate, Yorkshi
802	A. 1882, Apr. 21 F. 1890, Jan. 27	REX, FRANCIS HERBERT	311, Kentish Town Road, N.W.
453	A. 1876, May 8 F. 1881, Dec. 6	RICH, ROBERT	Didcot, Berks.
890	1883, Feb. 12	RICHARDS, ALFRED	Tottenham, N., and 18, Finsbury Cir E.C.
2027	1891, Mar. 14	RICHARDS, GEORGE EDWARD ...	Stour Lodge, Wimborne, Dorset.
2110	1891, May 23	RICHARDS, WILLIAM	816, High Road, Tottenham, N., and Finsbury Circus, E.C.
3122	A. 1896, Oct 28 F. 1901, Apr. 29	*RICHARDSON, ARTHUR BAYLIFFE	83, Bishopsgate Street Without, E.C.
1955	1891, Jan. 17	RICHARDSON, CHARLES	15, Barn Hill, Stamford, Lincolnshire
1746	1890, Feb. 24	RICHARDSON, GEORGE	5, Lonsdale Street, Carlisle.

† Special Sanitary Science Certificate.

Date of Election and of Transfer.	FELLOWS.	Address.
1890, May 29	RICHARDSON, JAMES	15, Barn Hill, Stamford Lincolnshire.
1876, Dec. 18	RICHARDSON, JOHN, M.I.C.E. ...	Well Royd, Rawdon, Leeds, Yorkshire.
A. 1891, Nov. 4 F. 1892, May 30	*RICHARDSON, OLIVER ARCHER ...	Sun Fire Office, Threadneedle St., E.C.
1873, Feb. 10	RICKMAN, THOMAS MILLER, A.R.I.B.A. (*Past-President*) ...	8, Montague Street, Russell Sq., W.C.
1891, Nov. 4	RIDDETT, WILLIAM HAMMOND ...	Townhall Chambers, Ryde, Isle of Wight.
1883, Apr. 2	RIDDLE, FREDERICK HENRY BRIMBLE	Albion House, Hyde Park Square, W.
A. 1899, Oct. 30 F. 1900, June 27	*RIDLEY, PERCY EDWARD	34, Gorst Road, Wandsworth Common, S.W.
1891, Mar. 14	RIGDEN, FRANCIS	Salisbury, Wilts.
1891, May 23	RIGG, CHARLES	24, High Street, Cardiff, Glamorganshire.
1888, Dec. 10	RIGHTON, EDWARD GRANTHAM...	High Street, Evesham, Worcestershire.
1891, Nov. 4	RIX, GEORGE KERRY	Somerleyton, near Lowestoft, Suffolk.
1899, Feb. 16	ROBB, WILLIAM JOHNSTON... ...	53, Bothwell Street, Glasgow.
A. 1876, Jan. 24 F. 1890, Nov. 10	ROBERTS, CHARLES QUINCEY ...	61, Lincoln's Inn Fields, W.C.
1895, Sept. 2	ROBERTS, EDWARD USSHER ...	The Rent Office, Longford, Ireland.
1890, Feb. 10	ROBERTS, HENRY CROYDON ...	78, King William Street, E.C.
1900, Oct. 30	ROBERTS, SAMUEL	Royal Engineer Office, Gibraltar.
1898, Feb. 18	ROBERTSON, WALTER WOOD ...	3, Parliament Square, Edinburgh.
A. 1882, Feb. 13 F. 1891, May 25	ROBEY, ROBERT	Oaklands, East Tytherley, Romsey, Hants.
A. 1892, Feb. 26 F. 1895, Nov. 1	*ROBINS, PHILIP SEYMOUR	5, Waterloo Place, Pall Mall, S.W.
1881, Jan. 24	ROBINS, WILLIAM H., A.M.I.C.E.	82A, New Street, Birmingham.
1887, Jan. 10	ROBINSON, CHARLES EDWARD ...	36, Coleman Street, E.C.
1891, May 23	ROBINSON, EDMUND ARTHUR ...	Lee-on-the-Solent, Gosport, Hants.
1891, Nov. 4	ROBINSON, GEORGE EDWARD ...	9, Tacketts Street, Blackburn, Lancashire.
1881, Apr. 4	ROBINSON, HENRY, M.I.C.E. ...	Parliament Mansions, Victoria Street, S.W.
1895, Sept. 2	ROBINSON, HENRY ARTHUR ...	Roundstone, Galway.
A. 1891, Nov. 4 F. 1894, Oct. 10	*ROBINSON, HENRY HERBERT ...	8, New Court, Carey Street, W.C.
1895, Sept. 2	ROBINSON, JAMES DODWELL, MAJOR	Seamount, Sligo, Ireland.
1895, Sept. 2	ROBINSON, RICHD. ST. GEORGE...	Seamount, Sligo, Ireland.
A. 1897, Oct. 26 F. 1898, Oct. 3	*ROBINSON, THEODORE RICHARD...	25, Campden Hill Gardens, Kensington, W.
1895, Sept. 2	ROBINSON, WILLIAM GODFREY ...	Roughan Park, Dungannon, Co. Tyrone.
1872, Dec. 9	ROBSON, EDWARD ROBERT, F.R.I.B.A.	Palace Chambers, 9, Bridge Street, S.W., and 2, The Paragon, Blackheath, S.E.
1895, Sept. 2	ROCHFORT, WILLIAM	Cahir Abbey, Cahir, Co. Tipperary.

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4299	1904, Feb. 18	*RODDICK, ANDREW	17, Surrey Street, W.C.
1453	1888, Feb. 6	RODERICK, JOHN	2, Temple Row West, Birmingham.
1747	1890, Feb. 24	RODHAM, JOHN	16, Finkle Street, Stockton-on-T Durham.
2864	1895, Sept. 2	ROE, WILLIAM JAMES, B.A. (*Dublin*)	11, Westland Row, Dublin.
2865	1895, Sept. 2	ROGERS, HARRY	The Hill, Monaghan, Ireland.
3125	A. 1896, Oct. 28 F. 1897, June 28	*ROGERS, HORACE MORDAUNT ...	50, Belgrave Road, South Belgravia, S
1225	1884, Dec. 8	ROGERS, WILLIAM BENNETT ...	78, Gloucester Road, South Kensing S.W.
1570	1889, Jan. 28	ROKER, MITCHEL JOHN	Snowdenham, West Cliff Road, Bou mouth.
361	A. 1874, Dec. 7 F. 1876, Jan. 24	ROLLESTON, SIR JOHN FOWKE LANCELOT, M.P. (*Past President*)	5, Waterloo Place, S.W., and G Friars, Leicester.
969	A. 1885, May 25 F. 1889, Jan. 28	*ROLLESTON, WILLIAM GUSTAVUS STANHOPE	Grey Friars, Leicester.
1344	A. 1886, Dec. 6 F. 1887, Nov. 14	*ROODS, ALFRED	8, New Court, Lincoln's Inn, W.C.
3126	A. 1896, Oct. 28 F. 1900, May 21	*ROOK, JOSEPH TAYLOR	23, Spencer Street, Carlisle, Cumberl
2113	1891, May 23	ROOKE, ALFRED BRADLEY	11, Great James St., Bedford Row, W
2376	1891, Nov. 4	ROONEY, SAMUEL	Cefn Mably Chambers, 9, Quay St., Car
1681	A. 1889, Dec. 9 F. 1891, Jan. 5	ROPER, JOHN SIMPSON, A.M.I.C.E.	32, Market Square, Lancaster.
980	A. 1883, Nov. 12 F. 1887, Jan. 10	ROPER, WILLIAM	Kentish Buildings, Tunbridge We Kent.
1483	1888, Apr. 30	ROSE, THOMAS	21, Prince of Wales Road, Norw Norfolk.
3335	1898, Oct. 29	*ROWLAND, JOSEPH SAMUEL ...	19, Station Street, Burton-on-Tr Staffs.
940	A. 1883, Apr. 30 F. 1890, Jan. 27	ROWLANDSON, CHRISTOPHER ...	The College, Durham.
2114	1891, May 23	ROYCE, DAVID NEEDHAM	Oakham, Rutland.
2115	1891, May 23	ROYCE, JOHN	Oakham, Rutland.
2029	1891, Mar. 14	RUAULT, JOHN GUSTAVE PETER...	17, Southampton St., Bloomsbury, W
2030	1891, Mar. 14	RUDKIN, ARTHUR JOHN	Maranatha, Tatsfield, Westerham, K
2378	1891, Nov. 4	RUMBALL, AUBREY	St. Alban's, Herts.
970	A. 1883, May 25 F. 1890, Jan. 6	*RUNDLE, EDWARD COLLINS ...	Bedford Office, Tavistock, Devon.
1023	A. 1883, Dec. 17 F. 1889, Feb. 25	RÜNTZ, ERNEST AUGUSTUS... ...	10, 11, and 12, Walbrook, E.C.
315	A. 1873, Dec. 8 F. 1875, Nov. 8	RUSHWORTH, EDMUND WALTER...	22, Savile Row, W.
2031	1891, Mar. 14	RUSSELL, MURRAY LAWRENCE...	3, King Street, Cheapside, E.C.
1517	1889, Jan. 14	RUTHERFORD, JAMES AUGUSTINE	Estate Office, Highclere Park, Newb
998	1883, Dec. 17	RUTLEY, CHARLES...	11, Dowgate Hill, E.C.
1818	1890, May 29	RUTLEY, FRANK	11, Dowgate Hill, E.C.
2866	1895, Sept. 2	RUTTLEDGE, FRANCIS...	Coolbawn, Enniscorthy, Co. Wexford

Date of Election and of Transfer.	FELLOWS.	Address.
1895, Sept. 2	RUTTLEDGE, THOMAS HENRY BRUEN	42, North Great George St., Dublin, Ireland.
1891, Nov. 4	RYAN, WILLIAM PATRICK	1, Metal Exchange Buildings, Whittington Avenue, Leadenhall Street, E.C.
A. 1876, Dec. 18 F. 1880, Nov. 8	RYDE, ARTHUR LYON	29, Great George Street, S.W.
A. 1884, Dec. 8 F. 1894, May 28	*SADLER, GEORGE WILLIAM, JUN., A.R.I.B.A.	Duchy of Lancaster Office, Lancaster Place, W.C.
1871, Feb. 13	ST. QUINTIN, PERRY	50, Threadneedle Street, E.C.
A. 1876, Mar. 20 F. 1889, Nov. 25	ST. QUINTIN, RICHARD SAMUEL	50, Threadneedle Street, E.C.
1868, Dec. 10	SALTER, WILLIAM HERBERT ...	The Hall, Attleborough, Norfolk.
1890, Apr. 14	SAMPLE, CHAS. HERBERT, B.A. (*Cantab.*)	Matfen, near Newcastle-on-Tyne, Northumberland.
1888, Jan. 9	SAMPLE, THOMAS	Bothal Castle, near Morpeth, Northumberland.
1890, Apr. 14	SAMPLE, WILLIAM COLLINGS ...	Tritlington Hall, Morpeth, Northumberland.
A. 1889, Dec. 9 F. 1891, Oct. 15	SAMPSON, WILLIAM	Beauchief Abbey, near Sheffield.
1887, Mar. 21	SAMUEL, WILLIAM JOHN	Newport Pagnell, Bucks.
1891, May 23	SANCTUARY, CAMPBELL FORTESCUE STAPLETON	Mangerton, Melplash, Dorset.
1875, Apr. 26	SANDAY, GEORGE HENRY	Highfield, Uxbridge.
1895, Sept. 2	SANDERS, CHARLES STEWART ...	Sanders Park, Charleville, Co. Cork.
A. 1902, Oct. 28 F. 1903, Nov. 9	*SANDERS, INGALTON	23, Portland Street, Southampton, Hampshire.
1895, Sept. 2	SANDERS, ROBERT MASSY DAWSON	Sanders Park, Charleville, Co. Cork.
A. 1895, Oct. 24 F. 1899, Mar. 20	*SANDFORD, CHARLES SIDNEY ...	16, St. James Row, Sheffield, Yorkshire.
1899, Feb. 16	SANDFORD-THOMPSON, WILLIAM JAMES	Balmanno, Marykirk, Kincardineshire.
A. 1890, Jan. 6 F. 1892, Nov. 14	*SAUNDERS, CHARLES HERBERT...	150, Finchley Road, Hampstead, N.W.
1869, Feb. 22	SAUNDERS, EDWARD	Leigh Grange, Teddington, Middlesex.
1891, Nov. 4	SAUNDERS, MARTIN L., A.R.I.B.A.	4, Coleman Street, E.C.
1891, Mar. 14	SAUNDERS, RUTLAND	18, Bishopsgate Street Within, E.C.
A. 1884, April 21 F. 1899, Oct. 2	*SAUNDERS, SAMUEL BROWN ...	Estate Offices, L. & S. W. Ry., Waterloo Station, S.E.
1891, Nov. 4	SAUNDERS, THEODORE RIDLEY ...	Belgrave Chambers, Ventnor, Isle of Wight.
1868, Aug. 17	SAVILL, ALFRED	39, New Broad Street, E.C., & Chigwell, Essex.

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782	A. 1882, Mar. 13 F. 1889, Mar. 18	SAVILL, ALFRED, JUN.	39, New Broad Street, E.C.
1902	A. 1890, Nov. 22 F. 1893, Aug. 9	*SAVILL, EDWIN	39, New Broad Street, E.C.
2711	A. 1894, Oct. 30 F. 1904, June 28	*‡SAWYER, JOHN ASHTON	62, High Street, Winchester.
3306	1898, Feb. 18	SAYER, GEORGE WILLIAM	Royal Engineer Office, The Barra Great Brook Street, Birmingham.
867	A. 1883, Jan. 15 F. 1892, Feb. 1	SCAMMELL, THOMAS	1, St. Stephen Street, Bristol, Glouce shire.
2713	A. 1894, Oct. 30 F. 1899, Oct. 2	*SCOTT, ARCHIBALD LACY	Long Melford, Suffolk.
2384	1891, Nov. 4	SCOTT, AUGUSTUS FREDERIC ...	24, Castle Meadow, Norwich.
1385	1887, Mar. 21	SCOTT, HENRY LACY	Bury St. Edmund's, Suffolk.
2870	1895, Sept. 2	SCOTT, JOHN RUSSELL...	60, Mountjoy Square, Dublin.
3034	1896, June 2	SCOTT, JOHN WILLIAM...	Roslevan, Ennis, Co. Clare.
3180	1897, Oct. 26	SCOTT, ROBERT	115, Wellington Street, Glasgow.
3621	1900, Feb. 23	*SCOTT-SMITH, ARTHUR COURTNEY	187 & 188, High Street, Exeter, Dev
755	A. 1882, Feb. 13 F. 1889, Mar. 4	SCRIVEN, CHARLES HERBERT ...	Agency Office, Thong, Gravesend, K
1861	1890, Nov. 22	SCRIVEN, RICHARD GEORGE ...	Castle Ashby, Northampton.
2647	1894, Oct. 30	*SCRUBY, WILLIAM THOMAS ...	Post Office Terrace, Cambridge.
1706	1890, Jan. 27	SEBASTIAN-SMITH, CHARLES ...	Shipley, Derby, & Friar Lane, Leice
3129	A. 1896, Oct. 28 F. 1899, Oct. 2	*SECKER, JOHN EUSTACE	Estate Office, Warrington, Lancashi
3259	A. 1897, Oct. 26 F. 1900, May. 21	*SEDGWICK, ALFRED SYDNEY EDWARD	26, Alexandra Parade, Weston-S Mare, Somersetshire.
3260	A. 1897, Oct. 26 F. 1902, Jan. 27	*SEEL, ROBERT HAROLD	Theatre Royal Chambers, Cardiff, morganshire.
534	1879, Mar. 3	SELBY, CHARLES FREDERIC ...	21, Queen Anne's Gate, S.W.
1863	1890, Nov. 22	SENIOR, HARRY SAMUEL	Sturminster Newton, Dorset.
3130	A. 1896, Oct. 28 F. 1897, June 28	*SEXTON, GEORGE ALEXANDER ...	Bank Chambers, 42, High Road, Kil N.W.
823	A. 1882, Nov. 13 F. 1886, May 3	SEYMOUR, RICHARD ARTHUR HAMILTON	46, Earl Street, Maidstone, Kent.
1049	A. 1884, Jan. 14 F. 1891, Mar. 16	SHACKLE, EDWARD NEILD	14, Mount Street, Grosvenor Squar
3301	1898 Feb. 18	SHARP, JOHN GRANT	74, Buchanan Street, Glasgow.
431	1876, Mar. 6	SHAW, JOHN ... ... (*Past-President.*)	College Place, Derby.
950	A. 1883, May 21 F. 1890, Mar, 10	SHAW, JOHN, JUN.	The College, All Saints', Derby.
3261	A. 1897, Oct. 26 F 1898, Oct. 3	*SHEARBURN, HARRY, B.A. (*Cantab.*)	Munstead, Godalming, Surrey.
1819	1890, May 29	SHELMERDINE, HENRY...	Estate Offices, Lancashire and Yor Railway, Hunt's Bank, Manches
1316	1886, May 3	SHERRIN, JOHN LESTER	Los Angeles, California.
706	A. 1882, Jan. 16 F 1887, Dec. 5	SHERWIN, JOSEPH HENRY	10, Little College Street, Westmi
2117	1891, May 23	SHILCOCK, JAMES	Hitchin, Herts, & 15, Basinghall St.
2385	- 1891, Nov. 4	SHONE, ISAAC, A.M.I.C.E.	47, Victoria Street, Westminster, S

‡ Special Forestry Certificate.

Date of Election and of Transfer.	FELLOWS.	Address.
A. 1877, Jan. 29 F. 1880, Nov. 8	SHOPPEE, CHARLES HERBERT, F.R.I.B.A.	22, John Street, Bedford Row, W.C.
1903, Oct. 28	SHORT, ERNEST WILLIAM GEORGE	Royal Engineer Civil Staff, Mauritius.
A. 1895, Oct. 24 F. 1900, June 27	*SHUFFLEBOTHAM, JOHN HENRY ...	Staplegrove, Taunton, Somerset.
1903, Oct. 28	*SILCOCK, EDWARD JOHN, M.I.C.E.	10, Park Row, Leeds.
A. 1881, Jan. 24 F. 1883, May 21	*SILCOCK, THOMAS BALL, B.SC. *(Lond.)*	47, Milsom Street, Bath.
1882, Jan. 30	SIMMONDS, FREDERICK	Parkside, Englefield Green, Surrey.
1889, Dec. 9	SIMMONS, CHARLES	Henley-on-Thames, Oxfordshire.
A. 1882, May 8 F. 1882, Nov. 11	SIMMONS, CHARLES FRANKLIN ...	Basingstoke, Hants, & Henley-on-Thames, Oxfordshire.
A. 1882, Nov. 13 F. 1891, Aug. 4	SIMMONS, WILLIAM ANKER ...	Henley-on-Thames and Basingstoke, Hants.
1883, Feb. 26	SIMMS, WALTER	27, Albany Street, N.W.
1888, May 14	SIMPSON, ROBERT THOMAS ...	Horsecroft, Bury St. Edmund's, Suffolk.
1891, Nov. 4	SINGLE, ARTHUR	83, The Grove, Stratford, E.
A. 1892, Nov. 28 F. 1897, May 31	*SKIPPER, HENRY HERBERT ...	Admiralty (Director of Works Department), 21, Northumberland Avenue, W.C.
1891, Nov. 4	SKITT, ARTHUR	9, St. Saviour's Road, Brixton Hill, S.W.
A. 1896, June 2 F. 1898, Oct. 3	*SKRIMSHIRE, SAMUEL	174, Piccadilly, W.
A. 1898, Oct. 29 F. 1901, Feb. 11	*SKUES, CHARLES AYRE MACKENZIE...	9 and 10, Tokenhouse Yard, E.C.
1891, Nov. 4	SLADE, JAMES BENJAMIN	67 and 68, Cheapside, E.C.
A. 1880, Nov. 22 F. 1882, Nov. 14	*SLATER, CHARLES FREDERICK ...	51, Cheapside, E.C.
A. 1894, Feb. 23 F. 1900, Feb. 12	*SLY, JOSEPH TOWNSON	Estate Agency Offices, Rickmansworth, Herts.
A. 1896, Oct. 28 F. 1900, Oct. 1	*SLY, WILLIAM	Estate Office, Somerset House, Whitehaven, Cumberland.
1897, Oct. 26	SMELLIE, GEORGE	167, St. Vincent Street, Glasgow.
A. 1895, Oct. 24 F. 1900, Oct. 1	*SMITH, CHARLES GORDON	56, Cannon Street, E.C., and 33 West Bank, Stamford Hill, N.
1889, May 13	SMITH, EDWARD	54, Amwell Street, E.C.
1888, Apr. 30	SMITH, FRANK	104, Colmore Row, Birmingham.
1891, Nov. 4	SMITH, FRANK ADAMS, A.R.I.B.A.	35, New Broad Street, E.C.
A. 1893, Oct. 4 F. 1896, July 8	*SMITH, FRANK BRAYBROOKE ...	Arkley, Bray, near Maidenhead, Berkshire.
A. 1888, Dec. 10 F. 1890, Jan. 27	*SMITH, FRANK WILLIAM	Beauchamp Hill, Milverton, Leamington, Warwickshire.
1891, Mar. 14	SMITH, FREDERIC ELLISON... ...	Tanfield Chambers, Bradford, Yorkshire.
1891, Nov. 4	SMITH, FREDERICK JOHN	21, Portland Street, Southampton, Hants.
1891, Mar. 14	SMITH, FREDERICK ROBERT ...	13, Victoria Street, Westminster, S.W.
1889, Dec. 9	SMITH, GEORGE	Boughton-Monchelsea, Kent.
1891, May 23	SMITH, GEORGE ALFRED	78, Parchment Street, Winchester, Hants.
1895, Sept. 2	SMITH, GEORGE YOUNG	Stradowan, Omagh, Co. Tyrone.

Dip. No.	Date of Election and of Transfer.	FELLOWS.	Address.
1864	1890, Nov. 22	SMITH, HARRY RUSSELL	Exchange Buildings, Bradford, Yorks
400	A. 1875, Apr. 26 F. 1881, Jan. 24	SMITH, HENRY HERBERT	Chippenham, Wilts, & 7, Whitehall P S.W.
3592	A. 1899, Oct. 30 F. 1904, Feb. 22	*SMITH, JOHN AMBROSE	Estate Office, Tatton Park, Knuts Cheshire, and 34, John Dalton St Manchester.
2391	1891, Nov. 4	SMITH, JOHN MOORE	14, Union Court, Old Broad Street,
1487	1888. May 14	SMITH, JOHN THOMPSON	Tattondale, Knutsford, Cheshire.
2118	1891, May 23	SMITH, PERCY PYNE CALDECOTT	The Admiralty, 21, Northumbe Avenue, W.C.
1820	1890, May 29	SMITH, SIDNEY	Southwater, Horsham, Sussex.
2392	1891, Nov. 4	SMITH, SIDNEY ROBERT JAMES, F.R.I.B.A.	14, York Buildings, Adelphi, W.C.
3265	A. 1897, Oct. 26 F. 1900, Nov. 12	*SMITH, SYDNEY ARTHUR	22, Chancery Lane, W.C.
894	A. 1883, Feb. 12 F. 1889, Feb. 25	SMITH, WHEATER	15, Cheapside, Bradford, Yorkshire.
1256	1885, Feb. 23	*SMITH, WILLIAM...	Upper Farm, Abbot's Salford, Eves Worcestershire.
1372	1887. Feb. 21	SMYTH-RICHARDS, GEORGE COBLEY	Estate Office, Castle Hill, near S Molton, Devonshire.
1494	1888, Nov. 12	SNELLING, HENRY...	19 & 20, Walbrook, E.C., & Sidcup,
2991	A. 1895, Oct. 24 F. 1900, Oct. 1	*SOUTHORN, CHARLES HERBERT	38, The Parade, Leamington Warwickshire.
2607	A. 1893, Oct. 4 F. 1896, Nov. 9	*SOWELS, WILLIAM CLOWES... ...	Queen Camel, Bath, Somersetshire.
1821	1890, May 29	SPACKMAN, CHARLES CHANTREY	6, Terrace Walk, Bath, Somersetshi
3182	1897, Oct. 26	SPROAT, ROBERT	1201, Jefferson Street, Boise City, Id U.S.A.
42	1868, June 15	SQUAREY, ELIAS PITTS ... ... (*Past-President*)	The Moot, Downton, Salisbury, an Great George Street, S.W.
1822	1890, May 29	SQUAREY, NEWELL WILLIAM PITTS	Bemerton, Salisbury, and 15, (George Street, S.W.
1067	1884, Jan. 28	SQUIRE, RICHARD...	2, Pont Street, Belgrave Square, S.
1277	1885, Dec. 7	STACEY, HARRIE	Station Road, Redhill, Surrey.
2393	1891, Nov. 4	STALLARD, ALFRED EDWIN ...	West Street, Havant, Hants.
2394	1891, Nov. 4	STALLARD, WILLIAM	St. John's House, St. John's, Worce and Worcester Chambers, Worce
2992	A. 1895, Oct. 24 F. 1899, Mar. 20	*STANDEN, ARTHUR CARNEGIE ...	4, Quex Road, High Road, Kilburn,
2395	1891, Nov. 4	STANFORD, CHARLES MAURICE...	23, High Street, Colchester, Essex.
3269	A. 1897, Oct. 26 F. 1901, July 2	*STANFORD, GEORGE	20, Waldeck Road, Ealing, W.
2036	1891, Mar. 14	STANGER, SAMUEL ARTHUR ...	21, Finsbury Pavement, E.C.
1437	1888, Jan. 9	STANLEY-DODGSON, STANLEY DICKINSON	Estate Office, Somerset House, W haven, Cumberland.
2609	A. 1893, Oct 4 F. 1894, Oct. 10	*STAPLEDON, ERNEST ALLEN ...	Bridge Chambers, Bideford, North D
1707	1890, Jan. 27	START, JOSEPH WILLIAM	Cups Chambers, High Street Colch Essex.

Date of Election and of Transfer.	FELLOWS.	Address.
1877, Jan. 15	STENNING, ALEXANDER ROSE F.R.I.B.A. (*Member of Council*)	121, Cannon Street, E.C.
A. 1902, Oct. 28 F. 1903, July 1	STENNING, OSWALD FRANCIS ...	121, Cannon Street, E.C.
A. 1879, Jan. 6 F. 1882, Nov. 13	STEPHENSON, CHARLES WILLIAM	38, Parliament Street, S.W.
1890, May 29	STEVENS, CHARLES VIVIAN ...	60, Pall Mall, S.W.
1891, Nov. 4	STEVENS, JOHN WM., A.R.I.B.A.	21, Bridge Street, E.C.
1884, May 26	STEVENS, WILLIAM CHARLES ...	22, Savile Row, W.
1897, Oct. 26	STEVENSON, ALLAN	14, Cathcart Street, Ayr, N.B.
1891, Mar. 14	STEVENSON, EDMUND HERBERT, M.I.C.E.	38, Parliament Street, S.W.
1868, July 27	STEWARD, HERBERT THOMAS ... (*President*)	45, Parliament Street, S.W.
1895, Sept. 2	STEWART, EDWARD P., CAPT. ...	21, Westland Row, Dublin.
1895, Sept. 2	STEWART, GEORGE FRANCIS ... (*Member of Council*)	Summerhill, Killiney, Co. Dublin.
A. 1899, Oct. 30 F. 1901 July 2	*STEWART, GEORGE PAKENHAM ...	21, Westland Row, Dublin, Ireland.
A. 1900, Oct. 30 F. 1901, July 2	*STEWART, HENRY PAKENHAM ...	6, Leinster Street, Dublin, Ireland.
1898, Oct 29	*STEWART, SAMUEL PARR	Arbury, Nuneaton, Warwickshire.
1895, Sept. 2	STEWART, WILLIAM THOMAS ...	6, Leinster Street, Dublin.
1891, Mar. 14	STIRTON, THOMAS...	Ablington House, Figheldean, Salisbury, Wiltshire.
1883, Apr. 30	STOCK, HENRY, F.R.I.B.A.	9, Denman Street, London Bridge, S.E.
1895, Sept. 2	STOKES, RICHARD...	60, Dawson Street, Dublin.
1881, Dec. 19	STONER, ALFRED	Boston House, 63 & 64, New Broad Street, E.C.
1889, Mar. 4	STOOKE, JAMES	Courtenay Street, Newton Abbot, Devon.
1896, June 2	STOPFORD, THE HON. GEORGE FREDERICK WILLIAM	The Estate Office, Gorey, Co. Wexford.
1891, Nov. 4	STOPHER, THOMAS	Winchester, Hants.
A. 1895, Oct. 24 F. 1898, June 27	*STROUTS, LEWIS HERBERT... ...	Craythorne, Mitcham Lane, Streatham, S.W.
1884, Feb. 25	STRUDWICK, HAYWARD JAMES...	Falcon Court, 32, Fleet Street, E.C.
A. 1875, Dec. 13 F. 1891, June 29	STRUTT, THE HON. EDWARD GERALD (*Member of Council*)	21, Finsbury Circus, E.C., & Whitelands, Hatfield Peverel, Chelmsford, Essex.
1895, Sept. 2	STUDDERT, R. R.	Hazlewood, Quin, Co. Clare.
1888, May 14	STUDDY, THOMAS EDWARD ...	Estate Office, Basing Park, Alton, Hants.
1868, July, 20	STURGE, ROBERT FOWLER	33, Corn Street, Bristol, Gloucestershire.
1868, June 15	STURGE, WILLIAM... ... ... (*Past-President*)	33, Corn Street, Bristol, Gloucestershire.
1901, Oct. 29	*STURT, CHARLES EDWIN	Fern Bank, Sandycombe Road, East Twickenham, Middlesex.
1891, Nov. 4	SURRIDGE, JOSEPH SMITH	Coggeshall, Essex.
A. 1899, Oct. 30 F. 1904, Mar. 21	*SUTCLIFFE, JAMES HENRY ...	Hazelwood, Hebden Bridge, Yorkshire.

Dip. No.	Date of Election and of Transfer.	FELLOWS.	Address.
2401	1891, Nov. 4	SUTHERS, JAMES	Union Offices, Hull Street, Todmo Yorks.
3432	A. 1898, Oct. 29 F. 1900, Nov. 12	*SUTTON, FREDERICK STANLEY ...	74, New Kent Road, S.E.
2402	1891, Nov. 4	SWAIN, ERNEST	26, High Street, Notting Hill Gate,
2403	1891, Nov. 4	SWAIN, FRANK	170, High Street, Notting Hill Gate,
1427	A. 1887, Dec. 19 F. 1892, Feb. 1	SWETENHAM, HENRY	Hawarden, Chester.
2878	1895, Sept. 2	SWINEY, WILLIAM D.	Moyagh, Ramelton, Co. Donegal.
1257	1885, Feb. 23	SWORDER, HUGH	High Street, Epping, Essex.
2879	1895, Sept. 2	SYNGE, EDWARD	Rathe, Kingscourt, Co. Cavan.
1824	1890, May 29	TABBERER, BENJ., F.R.I.B.A. ...	13, Basinghall Street, E.C.
2880	1895, Sept. 2	TAILYOUR, ALEXANDER	Estate Office, Arklow, Co. Wicklow
2881	1895, Sept. 2	TALBOT-CROSBIE, WM. DAVID ...	Cloonea, Mount Talbot, Roscommo
2717	A. 1894, Oct. 30 F. 1897, Jan. 25	*TALLENT, EDWIN JAMES	Brent Pelham, Buntingford, Herts.
3302	1898, Feb. 18	TANNAHILL, ROBERT DUNLOP ...	Lands Valuation Office, Kilmarnoc
1317	1886, May 3	TANNER, SIR HENRY, I.S.O., F.R.I.B.A.	H.M. Office of Works, Storey's Westminster, S.W.
1115	A. 1884, Feb. 25 F. 1888, Dec. 10	TANNER, WILLIAM	The Leys, Bryngwn Road, Ne Monmouthshire.
771	A. 1882, Feb. 27 F. 1889, Nov. 11	TAPP, ARTHUR	1, Prince's Street, Westminster, and Southend-on-Sea, Essex.
2404	1891, Nov 4	TASKER, HENRY HUGH	43, Penton Street, Pentonville, N.
2883	1895, Sept. 2	TATLOW, JOHN GARNETT	14, South Frederick Street, Dubli
2884	1895, Sept. 2	TATLOW, TISSINGTON WILLIAM GARNETT	Estate Offices, 14, South Frederick Dublin.
2405	1891, Nov. 4	TAYLOR, ARTHUR WILLIAM ...	159, High Street, Putney, S.W.
3067	1896, Oct. 28	TAYLOR, EDGAR CHARLES	Reconstruction Office, R.E. Shorncliffe Camp, Kent.
1364	1887, Jan. 24	TAYLOR, EDWARD FERGUSSON ...	New Barnet, Herts, and 75, Ch Lane, W.C.
2548	A. 1892, Nov. 28 F. 1895, Nov. 1	*TAYLOR, HARRY WILLIAM	St. Nicholas Chambers, Amen Newcastle-on-Tyne, Northumbe
2923	1895, Sept. 2	TAYLOR, J. GODFREY L.	Grangeville, Fethard, Co. Waterf
1471	A. 1888, Mar. 5 F. 1891, July 6	TAYLOR, JOHN HERBERT	12, Hanover Square, W.
678	A. 1881, Dec. 19 F. 1887, Feb. 7	TAYLOR, JOHN WALTON, F.R.I.B.A.	St. John Street, Grainger Stree Newcastle-on-Tyne, Northumb
1026	A. 1883, Dec. 17 F. 1889, Nov. 11	TAYLOR, MATTHEW	Northchapel, Petworth, Sussex.
1825	1890, May 29	TAYLOR, RICHARD FREDERICK ...	3, King Street, Cheapside, E.C.
2406	1891, Nov. 4	TAYLOR, SAMUEL	Nuttall, Nottingham.

Date of Election and of Transfer.	FELLOWS.	Address.
1891, Nov. 4	TAYLOR, THOMAS WALTERS ...	25, Brazennose Street, Manchester.
1899, Oct. 30	*TAYLOR, THOS. WILLIAM HARRIS	Estates Office, Killerton, Exeter, Devon.
A. 1894, Feb. 23 F. 1894, Oct. 10	*TEE, SAMUEL CLIFFORD	50, Moorgate Street, E.C.
A. 1891, Nov. 4 F. 1894, Oct. 10	*TEMPLE, FREDERICK WILSON ...	48, Sandgate Road, Folkestone, Kent.
1895, Sept. 2	TENER, EDWARD SHAW	The Square, Loughrea, Co. Galway.
1884, Jan. 28	TEWSON, EDWARD	80, Cheapside, E.C.
A. 1882, Dec. 18 F. 1885, Jan. 12	TEWSON, EDWARD ARTHUR ...	40, Molyneux Park, Tunbridge Wells, Kent.
A. 1893, Oct. 4 F. 1898, Oct. 3	*THEAKSTON, WILLIAM PEASE ...	Huntingdon.
A. 1882, Apr. 24 F. 1890, Nov. 10	THEOBALD, HENRY	6, South St., Finsbury Pavement, E.C. and 19, Cranbrook Gardens, Cranbrook Road, Ilford, Essex.
1883, Apr. 16	THEOBALD, HENRY WELLS DEWHURST	110, Great Russell Street, W.C.
A. 1896, June 2 F. 1898, June 6	*THEOBALD, JOHN MEDOWS	110, Great Russell Street, W.C.
A. 1898, Oct. 29 F. 1901, Jan. 14	*THOMAS, CHARLES JOHN HOWELL	The Guildhall, Swansea, Glamorganshire
1891, Nov. 4	THOMAS, GEORGE	Queen's Chambers, Cardiff, Glamorganshire.
1890, Mar. 10	THOMAS, GLEGGE	Cheshire Lines Committee, Central Station, Liverpool.
A. 1894, Oct. 30 F. 1901, July 2	*THOMAS, ILLTYD	17, Quay Street, Cardiff, Glamorganshire
1891, Nov. 4	THOMAS, JOHN HENRY	78, Gloucester Rd., S. Kensington, S.W
1882, Dec. 18	THOMPSON, ARTHUR EDMUND ...	Leadenhall Buildings, E.C.
1891, Nov. 4	THOMPSON, FRANCIS WILLIAM ...	18, Wood Street, Bolton, Lancashire.
1900, Oct. 30	THOMPSON, ROBERT JAMES... ...	The Treasury, Whitehall, S.W.
1888, Mar. 19	THORNE, ARNOLD, F.R.I.B.A. ...	Cross Street, Barnstaple, Devon.
1902, Oct. 28	*THORP, ROBERT HAYTON	Land of Green Ginger, Hull, Yorkshire
A. 1882, Feb. 13 F. 1889, Nov. 25	THORPE, CHRISTOPHER	Fairfield, Brimington, Chesterfield Derbyshire.
1891, May 23	THORPE, JOHN	Nailstone, Nuneaton, Leicestershire.
A. 1894, Oct. 30 F. 1895, July 8	*THRING, DOUGLAS THEODORE ...	Boughton House, near Kettering, Northamptonshire.
A. 1892, Feb. 26 F. 1900, Nov. 12	*THURGOOD, ALBERT EDWARD ...	Town Hall Chambers, Guildford, Surrey
A. 1890, Dec. 13 F. 1887, Nov. 14	THURNALL, JOHN EDWARD	Royston, Herts.
1878, Jan. 14	THURSFIELD, THOMAS HOWELLS	The Grange, Much Wenlock, Shropshire
1868, June 15	THYNNE, EDWARD LEWIS	9, Victoria Street, S.W.
1884, Jan. 28	THYNNE, GUY HARRY	9, Victoria Street, S.W.
1890, Nov. 22	TIDMAN, EDWARD	Connaught Mansions, 34, Victoria Street, S.W.
1887, Feb. 21	TINDALL, CHARLES WILLIAM ...	Wainfleet, R.S.O., Lincolnshire.
1895, Sept. 2	TISDALL, HY. CHICHESTER	21, Lincoln Place, Dublin.
1891, Nov. 4	TODD, RICHARD	Englefield, near Reading, Berks.

Dip. No.	Date of Election and of Transfer.	FELLOWS.	Address.
1241	1885, Jan. 12	TODD, WILLIAM HENRY, M.I.C.E.	County Buildings, Hull, Yorkshire.
1438	1888, Jan. 9	TOMLINSON, THOMAS	2, St. James's Street, Derby.
1600	1889, Mar. 4	TOMPSETT, WILLIAM ROBERT ...	Meadhurst, Tonbridge, and Stone C Farm, Paddock Wood, Kent.
767	1882, Feb. 27	TOOTELL, JOSEPH	13, King Street, Maidstone, Kent.
473	1877, Jan. 29	TOOTELL, RICHARD WILLIAM ...	11, Queen Victoria Street, E.C.
2550	A. 1892, Nov. 28 F. 1896, Feb. 3	*TORY, JOHN EDWARD	Dorchester, Dorset, & Yeovil, Some
447	1876, Apr. 24	TOWER, BROWNLOW RICHARD CHRISTOPHER	Bridgewater Estate Office, Ellesm Salop.
2736	A. 1895, Mar. 6 F. 1898, Oct. 3	*TOWNEND, WILLIAM	The Croft, Crossgates, near Leeds, Y shire.
2888	1895, Sept. 2	TOWNSEND, ROBERT UNIACKE FITZGERALD	18, South Mall, Cork, Ireland.
2890	1895, Sept. 2	TOWNSHEND, CHARLES LOFTUS ...	15, Molesworth Street, Dublin.
2892	1895, Sept. 2	TOWNSHEND, JAMES RICHARD CLARKE	23, South Frederick Street, Dublin.
2894	1895, Sept. 2	TOWNSHEND, THOMAS COURTNEY	23, South Frederick Street, Dublin.
2893	1895, Sept. 2	TOWNSHEND, THOMAS LOFTUS ...	15, Molesworth Street, Dublin.
2414	1891, Nov. 4	TRAFFORD, FREDERICK CHARLES	100, Jermyn Street, St. James's, S.W
972	A. 1883, May 25 F. 1886, Nov. 8	*TREADWELL, HENRY JOHN	2, Waterloo Place, Pall Mall, S.W.
3276	A. 1897, Oct. 26 F. 1903, May 18	*TREHEARNE, ALFRED FREDERICK ALDRIDGE	45, Lincoln's Inn Fields, W.C.
3436	A. 1898, Oct. 29 F. 1904, Apl. 18	*TREMLETT, WALTER WILLIAM ...	Estate Office, Uffington, Stamf Lincolnshire.
2895	1895, Sept. 2	TRENCH, ARTHUR	Dromkeen, Cavan, Ireland.
2896	1895, Sept. 2	TRENCH, GEO. FREDERIC, B.A. (*Dublin*)	Estate Office, Ardfert, Co. Kerry.
2897	1895, Sept. 2	TRENCH, JAMES CURRIE	Coolgraney, Dundrum, Co. Dublin.
2899	1895, Sept. 2	TRENCH, PHILIP FRANCIS CHEVENIX	30, Kildare Street, Dublin.
3437	A. 1898, Oct. 29 F. 1901, Nov. 25	*TRENT, WILLIAM EDWARD ...	Homefield, Maple Road, Wallwood P Leytonstone, Essex.
2415	1891, Nov. 4	TREPPLIN, ERNEST C.	Stoke Court, Taunton, Somersetshire
1001	1883, Dec. 17	TRETHEWY, HENRY	Silsoe, Ampthill, Beds.
1292	1886, Jan. 11	TRIST, JOHN WILLIAM	3, Great St. Helen's, E.C.
592	A. 1880, Dec. 13 F. 1891, Jan. 19	TROLLOPE, HENRY CHARLES ...	7, Hobart Place, S.W.
1131	A. 1884, Mar. 10 F. 1891, Aug. 4	TRUMPER, JOHN ALFRED	27, Lincoln's Inn Fields, W.C.
2040	1891, Mar. 14	TUBBS, WALTER BURNELL	68 & 69, Shoe Lane, Holborn Circus, E
2470	A. 1891, Nov. 4 F. 1896, Jan. 6	*TUCKETT, PERCIVAL FOX	2, Basinghall Street, E.C.
2416	1891, Nov. 4	TURNER, ALEXANDER HENRY ...	69, South Audley Street, Grosve Square, W.
1495	1888, Nov. 12	TURNER, CHARLES	Oakhurst, East Grinstead, Sussex.

Date of Election and of Transfer.	FELLOWS.	Address.
1895, Sept. 2	TURNER, FREDERICK ADOLPHUS BRABAZON	The Estate Office, Gorey, Co. Wexford.
1883, Feb. 26	TURNER, FREDERICK JOHN	Mansfield-Woodhouse, Mansfield, Notts.
1890, Nov. 22	TURNER, JOSEPH HARLING	Portland Estate Offices, Kilmarnock.
1888, Dec. 10	TURNER, THOMAS WARNER ...	Welbeck Abbey, Worksop, Notts.
1885, Jan. 26	TURNOR, EXSUPERIUS WESTON ...	The Green, Stafford.
1890, Nov. 22	TURTON, EDWARD JAMES	Horkstow, Barton-on-Humber, Lincolnshire.
1898, Oct. 29	*TUTT, EDWIN THOMAS	Market Place, Ampthill, Beds.
A. 1890, Jan. 6 F. 1893, Aug. 9	*TYLER, JAMES WILLIAM	45, Holborn Viaduct, E.C.
1895, Sept. 2	TYNDALL, ALBERT HENRY	Ballyanne House, New Ross, Co. Wexford.
1895, Sept. 2	TYRRELL, GARRETT CHARLES, M.A. (*Dublin*)	Ballinderry, Carbery, Co. Kildare.
A. 1900, Oct. 30 F. 1901, July 2	*UPSDALE, ANDREW REED	738, Romford Road, Manor Park, E.
1883, Feb. 26	VAIZEY, JOHN GEORGE...	Bocking, Braintree, Essex, & 44, Bedford Row, W.C.
1891, May 23	VALLANCE, ROBT. F., F.R.I.B.A.	Mansfield, Notts.
1895, Sept. 2	VANDELEUR, CECIL ERNEST ...	Estate Office, Mallow, Co. Cork.
1895, Sept. 2	VEREKER, HENRY ROBERT... ...	Summerville, Westport, Co. Mayo.
1876, Feb. 21	*VERNON, ARTHUR ... ... (*Past-President*)	Borshams, High Wycombe, Bucks, and 9, Strand, W.C.
1896, Sept. 2	VERNON, ARTHUR POMEROY ...	1, Wilton Place, Dublin.
1895, Sept. 2	VERNON, FANE	Pembroke Estate Office, Wilton Place, Dublin.
1891, Nov. 4	†VERNON-INKPEN, GEORGE CHAS.	75, King's Road, Southsea, Hants.
1895, Sept. 2	VERSCHOYLE, WILLIAM HENRY FOSTER...	Woodley, Dundrum, Co. Dublin.
A. 1902, Oct. 28 F. 1903, Nov. 9	*VICKERS, ALFRED CRANSTOUN ...	105, Edith Road, West Kensington, W.
A. 1878, Jan. 28 F. 1883, Oct. 11	VIGERS, LESLIE ROBERT ... ... (*Member of Council*)	4, Frederick's Place, E.C.
A. 1880, Dec. 13 F. 1885, Nov. 9	VIGERS, MARTIN	52, Queen Victoria Street, E.C.
1868, June 15	VIGERS, ROBERT ... ... (*Past-President*)	4, Frederick's Place, E.C., and 4, Whitehall Court, S.W.
1898, Nov. 12	VILLAR, JAMES	2, Essex Place, Cheltenham, Gloucestershire.
A. 1895, Oct. 24 F. 1898, Dec. 12	*VINTEN, HAROLD BERTRAM ...	72, High Street, Ramsgate, Kent.
1889, Mar. 4	WACHER, THOMAS	Upper Bridge Street, Canterbury, Kent.
1891 May 23	WADE, GEORGE TEMPEST	Halford Street, Leicester.

† Special Sanitary Science Certificate.

p. o	Date of Election and of Transfer.	FELLOWS.	Address.
18	1891, Nov. 4	WADLING, HY. JOHN, F.R.I.B.A.	Lamb Building, Temple, E.C.
19	1891, Nov. 4	WADMORE, BEAUCHAMP, A.R.I.B.A.	8, Bream's Buildings, Chancery La E.C.
18	1889, Apr. 1	WAGSTAFFE, THOMAS ROGERS ...	11, Devonshire Road, Balham, S.W., a 109, Leadenhall Street, E.C.
43	1882, Dec. 18	WAINWRIGHT, CHARLES RAWLINSON	Shepton Mallet, Somerset.
31	1889, Nov. 25	WAINWRIGHT, THOMAS TAYLOR (*Vice-President*)	13, Union Court, Castle St., Liverpool
92	1887, May 9	WALCOTT, LYONS RODEN SYMPSON	1, Gray's Inn Place, W.C.
69	1890, Nov. 22	WALKER, FRANCIS ELLIOTT... ...	Swansfield House, Alnwick, Northu berland.
21	1891, Nov. 4	WALKER, GEORGE BOOTH	Wainfleet, Lincolnshire.
85	1899, Feb. 16	WALKER, GEORGE JAMES	3, Golden Square, Aberdeen.
43	1882, Feb. 13	WALKER, HERBERT, A.M.I.C.E., F.R.I.B.A.	Albion Chambers, King Street, Nottin ham.
86	1899, Feb. 16	WALKER, JOHN	74, Bath Street, Glasgow.
27	1891, May 23	WALKER, JOSEPH	Lenton Avenue, The Park, Nottingha
73	1890, Mar. 24	WALKER, JOSHUA	Market Place, Retford, Notts.
59	1881, Dec 19	WALKER, SAMUEL...	22, Moorgate Street, E.C.
72	1884, Jan. 28	WALL, GEORGE YOUNG...	Exchequer Buildings, Durham.
20	1891, Nov. 4	WALLACE, GEORGE	Municipal Offices, 197, High Holbo W.C.
87	1899, Feb. 16	WALLACE, THOMAS DOUGLAS ...	Callendar Park, Falkirk, Stirlingshir
26	1898, Oct. 29	WALLACE, WILLIAM SYDNEY SMITH	Wallace Hall, Dunscore, Dumfriesshi
028	A. 1883, Dec. 17 F. 1897, May 31	*WALLIS, JOHN DAVID	57, King Street, Manchester.
785	1882, Mar. 27	WALMISLEY, ARTHUR THOMAS, M.I.C.E.	9, Victoria Street, S.W., and Harb Board Offices, Dover, Kent.
012	1891, Mar. 14	WALMISLEY, JOSEPH WILLIAM, F.R.I.B.A.	7, King's Terrace, Southsea, Hants.
307	1898, Feb. 18	WALMSLEY, ARTHUR TINDAL ...	Royal Engineer Office, Prospect, I muda.
750	A. 1900, Oct. 30 F. 1902, Dec. 8	*WALTER, THOMAS JAMES	Gervis Place, Bournemouth, Hampshi
407	1887, Dec. 19	WARD, DANIEL	8, Courtenay Street, Plymouth, Hewton, Beeralston, Devon.
469	1888, Mar. 5	WARD, FRANK	Burnville, Tavistock, North Devon.
029	A. 1883, Dec. 17 F. 1889, Nov. 11	WARD, GEORGE	"Lyndhurst," 2, Stowe Road, G hawk Road, W.
911	A. 1901, Oct. 29 F. 1902, Nov. 10	*†WARD, HENRY PAYNE	"Burleigh," Reigate Road, Redl Surrey.
909	1895, Sept. 2	WARD, THE HON. SOMERSET ...	Isle o' Valla House, Downpatrick.
660	1881, Dec. 19	WARE, CHAS. EDWIN, M.I.C.E. ...	Gandy Street Chambers, Exeter.
141	1884, Apr. 21	WARING, CHARLES EDWARD ...	Conservative Club, Cardiff, Glamorg shire.

† Special Sanitary Science Certificate.

Date of Election and of Transfer.	FELLOWS.	Address.
1890, Nov. 22	WARING, HERBERT FULLER ...	46, Earl Street, Maidstone, Kent.
A. 1899, Oct. 30 F. 1901, July 2	*WARMINGTON, HERBERT ANDREW CROMARTIE	7, St. James' Street, S.W.
1889, Nov. 25	WARNER, HENRY	Faringdon, Alton, Hants.
A. 1869, Mar. 8 F. 1875, Apr. 12	WARNER, WILLIAM HENRY... ...	130, Mount Street, Grosvenor Square, W.
1895, Sept. 2	WARNOCK, THOMAS ARCHIBALD	Portaferry, Co. Down.
1902, Oct. 28	WARWICK, GEORGE ERNEST ...	Valuation Office, Dublin.
1891, Nov. 4	WATERMAN, ALBERT JAMES ...	20, Week Street, Maidstone, Kent.
1883, Jan. 29	WATERMAN, JAMES	Tenterden and Ashford, Kent.
1891, Mar. 14	WATERS, EDWARD	The Canal, Salisbury, Wilts.
A. 1882, Feb. 13 F. 1887, Mar. 7	WATERS, WILLIAM RICHARD ...	123, King's Road, Brighton, Sussex.
A. 1884, Feb. 11 F. 1889, Mar. 4	WATKINS, ROBERT ARUNDEL ...	Castle Combe, Chippenham, Wilts.
1868, June 15	WATNEY, DANIEL ... ... (*Past President*)	33, Poultry, E.C.
1891, Jan. 17	WATNEY, DENDY	4A, Frederick's Place, E.C.
A. 1883, May 21 F. 1887, Feb. 21	WATNEY, WALTER DANIEL	9, Whitehall Place, S.W.
1895, Sept. 2	WATSON, ARTHUR B., LL.B., M.A. (*Dublin*)	11, Montpelier Parade, Monkstown, Co. Dublin.
1880, Mar. 1	WATSON, HERBERT EDWARD ...	New Grove, Petworth, Sussex, and 6, Lendal, York.
A. 1895, Oct. 24 F. 1899, Nov. 13	*WATSON, HERBERT JOHN	St. Helen's, Cockermouth, Cumberland.
A. 1884, Dec. 8 F. 1895, Sept. 23	*WATSON, JAMES BRUCE	Estate Office, Shirburn, Wallingford.
1891, Nov. 4	WATSON, JOHN	Cogan Chambers, Bowlalley Lane, Hull.
A. 1885, Dec. 7 F. 1894, May 28	*WATSON, JOHN	Wentbridge Lodge, Pontefract, Yorks.
1895, Sept. 2	WATSON, WILLIAM JAMES	Benvenue, Rostrevor, Co. Down.
1888, Feb. 6	WATT, ALEXANDER	Ravenglass, Carnforth, Lancashire.
A. 1876, Dec. 18 F. 1879, Nov. 10	WATTS, CHARLES	13, Southampton Street, Strand, W.C.
1891, Nov. 4	WATTS, SAMUEL LINGARD	40, South King Street, Cross Street, Manchester.
1889, Dec. 9	WAY, HENRY JAMES	109, Lower St. James' Street, Newport, Isle of Wight.
1872, May 6	WEALL, JOHN	38, High Street, Watford, Herts.
A. 1898, Oct. 29 F. 1904, Jan. 25	*WEALL, JOHN GRAHAM	38, High Street, Watford, Hertfordshire.
1884, Jan. 14	WEATHERALL, HENRY	22, Chancery Lane, W.C.
A. 1900, Oct. 30 F. 1902, Sept. 30	*WEATHERILL, GEORGE FORD ...	Farnley, Otley, Yorkshire.
1882, Jan. 16	WEAVER, WILLIAM, M.I.C.E. ...	Town Hall, Kensington, W.
1895, Sept. 2	WEBB, CHARLES	Corrigard, Boyle, Co. Roscommon.
1890, Feb. 10	WEBB, WILLIAM	Keepers Cottage, Furze Hill, Purley, Surrey.
1900, Oct. 30	WEBB, WILLIAM HAROLD	Royal Engineer Office, The Castle, Cape Town, South Africa.
A. 1899, Oct. 30 F. 1903, Nov. 23	*WEBBER, HENRY STANTON	Marlow Road, Maidenhead, Berkshire.

Ip. Io.	Date of Election and of Transfer.	FELLOWS.	Address.
178	1888, Apr. 16	WEBSTER, ALEXANDER...	100, Highgate, and 9, Cliff Terra Kendal, Westmoreland.
108	A. 1890, Nov. 22 F 1897, Feb. 8	*WEBSTER, HUGH CALTHROP ...	2, Basinghall Street, E.C.
159	1889, Dec. 9	WELCH, FREDERICK WILLIAM ...	170, North Street, Brighton, and 3 Western Road, Hove, Sussex.
128	1891, May 23	WELLS, EDWIN	Barnard Castle, Co. Durham.
306	A. 1899, Oct. 30 F. 1900, Oct. 1	*WELLS, FREDERICK BEAUCHAMP	Oficina del Ingeniero, Ferro Carril Sud, Beunos Aires, South America.
553	A. 1892, Nov. 28 F. 1896, Oct. 1	*WELLS, WILLIAM HENRY	22, Lower Phillimore Place, W.
169	A. 1884, May 5 F. 1890, Dec. 8	WELLS, WILLIAM HOWLEY	Estate Office, Evershot, Dorset.
561	1881, Dec. 19	WELLSTED, WM. HENRY, M.I.C.E.	Prince's Dock Chambers, Hull, Yorkshi
914	1895, Sept. 2	WELPLEY, JAMES	65, George Street Limerick, Ireland.
442	A. 1898, Oct. 29 F. 1902, Dec. 8	*WELSH, HUGH	Newton Park Estate, Newton St. L Near Bristol.
152	1897, Feb. 17	WENBORN, SIDNEY THOMAS ...	Royal Engineer Office. Hong Kong, Chi
515	A. 1893, Oct. 4 F. 1895, Sept. 23	*WEST, CHARLES HENRY EDWARD	5A, Orchard Street, Portman Squa W.
307	A. 1899, Oct. 30 F. 1901, Dec. 9	*WEST, HERBERT JAMES	5, John Street, Bedford Row, W.C.
744	1882, Feb. 13	WESTBURY, GEORGE HENRY ...	The Knoll, Andover, Hants.
945	1891, Mar. 14	WETHERALL, HARRY LANCASTER	Brachlyn, Winchfield, Hants.
454	1888, Feb. 6	WHALLEY, HENRY SHAW	3, Hunter Street, Town Hall Squa Chester.
139	A. 1896, Oct. 28 F. 1900, May 21	*WHEATLEY, STEPHEN GLADSTANE	28 and 29, Chancery Lane, W.C.
554	A. 1892, Nov. 28 F. 1897, June 28	*WHEELER, JOHN HENRY WEST ...	1, Sydney Street, Fulham Road, So Kensington, S.W.
516	A. 1893, Oct. 4 F. 1897, Oct. 4	*WHITAKER, ERNEST VICTOR ...	8, Queen Street, Exeter, Devon.
427	1891, Nov. 4	WHITE, ALFRED EDWARD, M.I.C.E.	Town Hall, Hull, Yorkshire.
915	1896, Jan. 21	WHITE, ARTHUR	99, George Street, Limerick, Ireland.
959	1891, Jan. 17	WHITE, CHARLES ALEXANDER ...	18, High Street, Dorking, Surrey.
428	1891, Nov. 4	WHITE, JAMES ALEXANDER... ...	18, High Street, Dorking, Surrey.
745	1882, Feb. 13	WHITE, JOHN	Warrington, Lancashire.
916	1895, Sept. 2	WHITE, RICHARD	Estate Office, Gowran, Co. Kilkenny.
429	1891, Nov. 4	WHITE, WILLIAM HENRY	Eldon Buildings, 15, 16, and 17, E Street, E.C.
701	1882, Jan. 16	WHITELEY, CHARLES PERRY ...	82, Queen Street, E.C.
723	A. 1894, Oct. 30 F. 1896, May 11	*WHITTAKER, JOHN DRONSFIELD, B.A. (*Cantab.*)	Oxford and Cambridge Club, Pall M S.W.
759	A. 1900, Oct. 30 F. 1902, July 14	*WHITTEN, GEORGE JACKSON ...	Flint House, Tenby, South Wales.
998	A. 1895, Oct. 24 F. 1900, Nov. 12	*WHITTON, PERCY	24, Gandy Street, Exeter, Devon.
303	1898, Feb. 18	WHYTE JOHN...	Hollybank, St. Ninians, by Stirling,
790	1890 Apr. 14	WIGLEY, GEORGE DAVYS EDWARD	Winslow, Buckinghamshire.

Date of Election and of Transfer.	FELLOWS.	Address.
A. 1899, Oct. 30 F. 1904, Feb. 25	*WIGLEY, SIDNEY PRUDDEN ...	Winslow, Fenny Stratford, Buckinghamshire.
A. 1870, Feb. 7 F. 1876, Nov. 13	WIGRAM, JOHN	South Collingham, Newark, Notts.
A. 1898, Oct. 29 F. 1899, Oct. 2	*WIGRAM, REGINALD SPENCER ...	12A, Savile Row, W.
1892, Feb. 26	WILBRAHAM, EDWARD SIDNEY ...	Estate Office, St. Giles, Salisbury, Wilts.
1891, Nov. 4	WILKIN, HORACE MARTIN	King's Lynn, Norfolk.
1891, Nov. 4	WILKINS, WILLIAM	Athenæum Square, Llanelly, Carmarthenshire.
1882, Jan. 30	WILKINSON, GEORGE AYSCOUGH	7, Poultry, E.C.
1891, Jan. 17	WILKINSON, GEORGE HERBERT ...	7, Poultry, E.C.
1884, Dec. 8	WILKINSON, THOMAS	170, North Street, Brighton, and 30A, Western Road, Hove, Sussex.
1890, Mar. 10	WILLIAMS, EDWARD BICKERTON...	City Chambers, 82, New St., Birmingham.
1891, Nov. 4	WILLIAMS, GERALD GARNONS ...	Ashburnham Estate Office, Burry Port, R.S.O., Carmarthenshire.
A. 1895, Mar. 6 F. 1898, May 2	*WILLIAMS, HENRY CUTHBERT ...	45, Grey Coat Gardens, Victoria St., S.W.
1884, Feb. 11	WILLIAMS, JOHN	Gwernhefin, Bala, North Wales.
A. 1875, Jan. 18 F. 1890, Feb. 24	WILLIAMS, LEONARD JAMES ...	118, Queen Victoria Street, E.C.
A. 1880, Jan. 19 F. 1883, Apr. 16	WILLIAMS, WILLIAM HERBERT ...	Great Western Railway, Paddington, W.
A. 1893, Oct. 4 F. 1897, Feb. 22	*WILLIS, EDWARD	Forth Lodge, 293, Willesden Lane, Willesden Green, N.W.
1895, Sept. 2	WILLIS, GILBERT DE LAVAL... ...	4, Kildare Street, Dublin.
1895, Sept. 2	WILLIS, HENRY DE LAVAL	Ennis, Co. Clare.
1889, Feb. 25	WILLMOT, GEORGE DYOTT	6, Waterloo Street, Birmingham.
A. 1882, Apr. 24 F. 1887, May 9	WILLMOT, JOHN	6, Waterloo Street, Birmingham.
1895, Sept. 2	WILSON, ARTHUR JN. DE COURCY	Garvagh, Edgeworthstown, Co. Longford, Ireland.
A. 1898, Oct. 29 F. 1899, Oct. 2	*WILSON, FREDERICK ROBERT ...	10, St. Nicholas Rd., Upper Tooting, S.W.
1883, Dec. 17	WILSON, SIR JACOB	Chillingham Barns, Belford, Northumberland.
1899, Feb. 16	WILSON, JAMES, C.A.	135, Wellington Street, Glasgow.
A. 1896, Oct. 28 F. 1899, Jan. 23	*WILSON, LAWRENCE RICHARD ...	Bank of England Chambers, Tib Lane, Manchester.
1881, Dec. 19	WILSON, THOMAS SILK...	Bank of England Chambers, Tib Lane, Manchester.
A. 1888, Jan. 23 F. 1904, Feb. 22	*WILSON, WILLIAM EDWARD ...	Bank of England Chambers, Tib Lane, Manchester.
1891, Jan. 17	WILSON, WILLIAM HENRY	29, Fountain Street, Manchester.
1891, Nov. 4	WINN, THOMAS	92, Albion Street, Leeds.
1898, Feb. 18	WINNING, DOUGLAS CAMPBELL WILLS	Municipal Buildings, Broughty Ferry, N.B.

p. o.	Date of Election and of Transfer.	FELLOWS.	Address.
63	1891, Jan. 17	WINTERTON, HARRY JOHN CAMPION	St. Mary's Chambers, Lichfield, Staffo shire.
64	1891, Jan. 17	WINTERTON, WILLIAM MOXON ...	Walton Warren, Burton-on-Tre Staffordshire.
37	1891, Nov. 4	WISE, CHARLES DACRES	Toddington, Winchcomb, Gloucest shire.
47	1891, Mar. 14	WITHALL, LATHAM AUGUSTUS, F.R.I.B.A.	Jewry House, Old Jewry, E.C.
30	1891, May 23	WOLFENDEN, THOMAS	Estate Office, Scarisbrick Hall, n Ormskirk, Lancashire.
38	1891, Nov. 4	WOLLEY, THOMAS JOHN	Clungunford Estate Office, Aston- Clun, Salop.
40	A. 1894, Feb. 23 F. 1899, Jan. 23	*WONNACOTT, ERNEST WILLIAM MALPAS, A.R.I.B.A.	Berkeley House, Berkeley Square, W.
09	A. 1890, Nov. 22 F. 1891, May 25	*WOOD, CHARLES BRUCE	26, Haldon Road, West Hill, Wandswor S.W.
74	1888, Mar. 19 A. 1894, Oct. 30	WOOD, JOHN DANIEL	6, Mount Street, W.
24	F. 1901, Apr. 29	*‡WOOD, LESLIE STUART	College View, East Grinstead, Susse
47	A. 1898, Oct. 29 F. 1901, Apr. 29	*WOOD-MARTIN, HENRY ROGER BROMHEAD	Cleveragh, Sligo, Ireland.
48	1891, Mar. 14	WOOD, WILLIAM	Ivymeath, Snodland, Rochester, Kent
73	1890, Nov. 22	WOODBRIDGE, STEPHEN, JUN. ...	210, High Street, Brentford.
74	1890, Nov. 22	WOODFORDE, LIONEL BURNET ...	Milton Ferry, Peterborough, No amptonshire.
31	1891, May 23	WOODMAN, THOMAS FOSTER ...	32, St. Peter Street, St. Albans, Hert
07	1899, Oct. 30	*WOODROW, THOMAS JOHN	18, Coleman Street, E.C.
57	A. 1892, Nov. 28 F. 1895, Sept. 23	*WOODS, ARTHUR GEORGE	Hampton House, Grove Road, Hounsl Middlesex.
32	1891, May 23	WOODS, THOMAS	4 and 5, Church Parade, Hounsl Middlesex.
39	1891, Nov. 4	WOODTHORPE, EDMUND, F.R.I.B.A., M.A. (*Oxon.*)	32, Gresham Street, E.C.
11	A. 1882, Jan. 16 F. 1890, Apr. 14	WOODWARD, WM., A.R.I.B.A. ...	13, Southampton Street, Strand, W.C
40	1891, Nov. 4	WOOLER, WALTER HERNAMAN ...	Waterloo Street, Weston-super-Ma Somersetshire.
49	1891, Mar. 14	WOOLLEY, JOHN TURTON	Salisbury, Wilts.
13	1881, Feb. 21	WOOLLEY, REGINALD	Silver Street, Lincoln, & South Coll ham, Newark, Notts.
27	A. 1876, Feb. 7 F. 1880, Nov. 8	WOOLLEY, THOMAS CECIL SMITH	South Collingham, Newark, Notts.
67	A. 1871, Nov. 13 F. 1877, Jan. 29	WOOLLEY, W. EDWARD ... ... (*Member of Council*)	The Red House, Loughboro Leicestershire.
76	1890, Nov. 22	WORDSWORTH, ROBERT WALTER	Whitemoor, Ollerton, Notts.
80	A. 1881, Dec. 19 F. 1887, Jan. 10	WREATHALL, ROBERT T.	The Vestry Hall, St. Martin's Pl Trafalgar Square, W.C., and M House, Greenhill, Harrow.

‡ Special Forestry Certificate.

Date of Election and of Transfer.	FELLOWS.	Address.
1891, Nov. 4	WRENNALL, WILLIAM	9, Harrington Street, Liverpool.
1891, Nov. 4	WRIGHT, CHARLES WILLIAM, M.A. (*Cantab.*)	21, Parkinson Street, Nottingham.
1891, Nov. 4	WRIGHT, GEORGE THOMAS GREEN	3, Great Winchester Street, E.C.
1891, Nov. 4	WRIGHT, JAMES	Rawcliffe, near Selby, Yorkshire.
1872, Dec. 9	WRIGHT, WILLIAM EDWARD ...	King's Lynn, Norfolk.
1890, Feb. 24	WRIGHTSON, ARTHUR FREDERICK	26, Budge Row, E.C.
A. 1894, Oct. 30 F. 1902, Dec. 8	*WYATT, ARCHIBALD	The Jungle, Portchester, Hampshire.
A. 1898, Oct. 29 F. 1901, July 2	*WYATT, HERBERT GUY BUCKELL	10, West Pallant, Chichester, Sussex.
1882, Jan. 30	WYATT, OLIVER NEWMAN	East Street, Chichester, Sussex.
A. 1893, Oct. 4 F. 1895, Nov. 1	*WYLES, JOHN WALTER...	Shortlands, Woodford Road, South Woodford, Essex.
1884, Mar. 10	WYLEY, HENRY JAMES	Bridgnorth, Shropshire.
1884, Dec. 8	WYLEY, WILLIAM JOHN	2, School Chambers, Shrewsbury, Shropshire.
1895, Sept. 2	WYNNE, ALFRED HENRY	Collon, Drogheda, Co. Louth.
1891, Nov. 4	YORK, HENRY	East Barnet Valley Urban District Council, Station Road, New Barnet, Herts.
A. 1881, Jan. 10 F. 1891, Jan. 5	YOUNG, ANDREW	London County Council, 17, Spring Gardens, S.W.
1892, Feb. 26	YOUNG, CHARLES	Alton, Hants.
1890, May 29	YOUNG, DOUGLAS	51, Coleman Street, E.C.
1891, Nov. 4	YOUNG, EDWARD HERBERT, A.M.I.C.E.	Imperial Buildings, 20, Exchange Street East, Liverpool.
1895, Sept. 2	YOUNG, GEORGE LAWRENCE ...	Randalstown, Co. Antrim.
A. 1891, Nov. 4 F. 1892, Nov. 14	*YOUNG, HARRY AUSTIN LINDSAY	The Johnstone Estate Office, Weymouth, Dorset.
A. 1878, Dec. 9 F. 1891, Feb. 2	YOUNG, MORGAN HENRY	17, Southampton St., Bloomsbury Square, W.C.
1891, Nov. 4	YOUNG, OSWALD WILLIAM	Mersey Docks & Harbour Board, Liverpool.
1891, Nov. 4	YOUNG, THOMAS	6, Warwick Court, Gray's Inn, W.C.
A. 1897, Oct. 26 F. 1900, Feb. 12	*YOUNG, THOMAS JOHN	The Agricultural College, Holmes Chapel, Cheshire.
1899, Feb. 16	YUILLE, ROBERT	70, South Portland Street, Glasgow.

Total number of Fellows, 1883.

Professional Associates.

The names of those Professional Associates who have qualified for the Class by Examination are distinguished thus *

The names of those Professional Associates who have further qualified by Examination for, but have not yet been transfe to, the Class of Fellows, are distinguished thus ¶

Dip. No.	Date of Election.	PROFESSIONAL ASSOCIATES.	Address.
2648	1894, Oct. 30	*ADAMS, GERALD JAMES FREDERICK	35, St. George's Street, Canterbury, a Town Hall Chambers, Herne Bay, Ke
3950	1902, Oct. 28	*ADAMS, GILBERT MATTHEWS ...	13, Alma Road, Canonbury, N.
2929	1895, Oct. 24	*ADAMS, HERBERT	38, Sloane Street, Belgravia, S.W.
3780	1901, Oct. 29	*ALLEN, FRED TREGARTHEN ...	21, Bonfield Road, Lewisham, S.E.
2564	1893, Oct. 4	*ALLEN, JOHN PARNELL	23, Victoria Buildings, Grainger Stre West, Newcastle-on-Tyne.
3951	1902, Oct. 28	*ALLEN, LESLIE HERBERT	4, Holmbury View, Upper Clapton, N.
3339	1898, Oct. 29	*ALLPRESS, HORACE EDWARD ...	59, Perrymead Street, Eel Bro Common, S.W.
4127	1903, Oct. 28	*ALLSOP, BENJAMIN GEORGE KIDSTON	7, Bentinck Mansions, Bentinck Stre W.
3952	1902, Oct. 28	*AMIES, HERBERT CHRISTOPHER...	117, Pinhoe Road, Exeter, Devonshire
3781	1901, Oct. 29	*ANDERSON, HENRY	Care of J. S. Foster, Portmadoc, C narvon.
2931	1895, Oct. 24	*ANDERSON, THOMAS JOHN	70, Grand Parade, Harringay, N.
3340	1898, Oct. 29	*ANDREWS, ARTHUR GEORGE ...	West View, Dee Banks, Chester.
3341	1898, Oct. 29	*ANDREWS, HERBERT GEORGE ...	20, Lordsmead Road, Lordship La Tottenham, N.
3074	1896, Oct. 28	*ANDREWS, STEPHEN HAMPTON ...	29, Penshurst Road, South Hackney, N.
3193	1897, Oct. 26	*APPLEBY, FRANK SEFTON	60, Woodcroft Road, Liverpool.
3782	1901, Oct. 29	*ARMSTRONG, ALBERT LESLIE ...	Blairgowrie, Dragon Parade, Harroga Yorkshire.
3783	1901, Oct. 29	*ARMSTRONG, JAMES GIBBONS DICKSON	Bennett Grange, Sheffield, Yorkshire.
3509	1899, Oct. 30	*ARMSTRONG, JOHN WM. WILSON	"Blacon," Stratford-on-Avon, Warwi shire.
1877	1890, Nov. 22	*ARMYTAGE, FRANCIS REGINALD	4, Pump Court, Temple, E.C.
3622	1900, Feb. 23	*ARNOLD, ALAN	Westgate Chambers, Winchester, Ha
3640	1900, Oct. 30	*ARNOLD, HARRY HAGON	Victoria Chambers, Bank Plain, Norwi Norfolk.
4108	1903, Feb. 20	*ASHTON, ARTHUR WARD... ...	Geirionydd, Welsh Walls, Oswest Shropshire.
2650	1894, Oct. 30	*ASTLEY, REGINALD BASIL	Acton Reynold, Shrewsbury, Shropsh
3343	1898, Oct. 29	*ATTLEE, EDWARD GUY...	Green Lane, Burbage, Buxton, Derb shire.
3784	1901, Oct. 29	*¶AUBREY, WILLIAM BEAUCHAMP	19, East Street, Thame, Oxfordshire.
3785	1901, Oct. 29	*¶AUSTIN, FRANK HOLMAN	29, Basinghall Street, E.C.

Date of Election.	PROFESSIONAL ASSOCIATES.	Address.
1901, Oct. 29	*BAILEY, PERCIVAL HENRY ASHBY	Surveyor's Office, The Straits, Dudley, Staffordshire.
1879, Dec 8	BALDING, ALBERT	57, Coleman St., E.C., & Barkway, Herts.
1901, Oct. 29	*¶BALDWIN-WISEMAN, WILLIAM RALPH, M.Sc., F.G.S., A.M.I.C.E.	4, Brundretts Road, Chorlton-cum-Hardy, Lancashire.
1888, Dec. 10	*BALL, JAMES BENJAMIN	Engineer's Office, L. D. & E. C. Railway, Chesterfield, Derbyshire.
1902, Oct. 28	*¶BAMFORD, WALTER HERBERT...	Estate Department, Euston Station, W.C.
1900, Oct. 30	*BANKS, EDWARD JOHN STANLEY	101, Bethune Road, Stamford Hill, N.
1903, Oct. 28	*BANKS, JOHN, JUN.	Graythwaite Hall Estate Office, Newby Bridge, Ulverston, Lancashire.
1902, Oct. 28	*¶BARCLAY, ROBERT HERMAN ...	41, High Street, Clapham, S.W.
1890, Nov. 22	*BARCLAY, THOMAS	Southfield, Castle Bromwich, Birmingham, Warwickshire.
1903, Oct. 28	*BARE, ARNOLD EDWIN	9, Southampton Street, Bloomsbury Square, W.C.
1901, Oct. 29	*BARKER, HERBERT GRAHAM ...	Beechcroft, Merton Hall Road, Wimbledon, S.W.
1885, Jan. 26	*BARRATT, HARRY...	Hill View, Corser Street, Stourbridge, Worcestershire.
1902, Oct. 28	*BASTABLE, JOHN DANIEL	41, Leyland Rd., Southport, Lancashire.
1903, Oct. 28	*BATEMAN, FRANK GRAHAM ...	Woodcote, Somerset Road, Ealing, W.
1903, Oct. 28	*BATSTONE, WALTER WATERFIELD	110, Cannon Street, E.C.
1901, Oct. 29	*BATTERBURY, NORMAN BONIFACE	35, Slatey Road, Birkenhead, Cheshire.
1904, Feb. 18	*BAYLEY, HAROLD	Prince Albert, Saskatchewan, Canada.
1900, Oct. 30	*BAYLIS, ALBERT EDWARD ...	H.M. Office of Works, Storeys Gate, S.W.
1899, Oct. 30	*BAYLIS, ALFRED WILLIAM	98, Ryland Road, Edgbaston, Birmingham.
1896, Oct. 28	*BEACH, ARCHIBALD WILLIAM HICKS, MAJOR	Mancetter House, Atherstone, Warwickshire.
1891, Nov. 4	*BEASLEY, JOHN ARTHUR LLEWELLYN	37, Friar Lane, Leicester.
1903, Feb. 20	*BEASLEY, THOMAS CALVERT PLATT	Harston, Grantham, Lincolnshire.
1903, Oct. 28	*BEAVEN, HOWARD CLIFFORD ...	27, Richmond Road, Westbourne Grove, W.
1903, Oct. 28	*¶BEDDALL, HERBERT BOWMAN ...	Ardenlee, Sherwood Rise, Nottingham.
1903, Oct. 28	*BEDFORD, CHARLES EDGAR ...	10, Wigmore Street, W.
1898, Oct. 29	*BEDWELL, ERNEST CHARLES ...	29, Fleet Street, E.C.
1901, Oct. 29	*BELL, ALBERT HENRY	Woburn Lodge, Addlestone, Surrey.
1895, Oct. 24	*BELL-JOHN, HARRY	H.M. Public Works Department, Pretoria, B.S.A.
1895, Oct. 24	*¶BENTLEY, HAROLD EDWIN ...	Percy Lodge, Twickenham Road Teddington.
1903, Oct. 28	*BERRIE, VERO LAVERTON	Tamworth, Bickersteth Road, Tooting, S.W.

Dip. No.	Date of Election.	PROFESSIONAL ASSOCIATES.	Address.
3791	1901, Oct. 29	*BERRY, ALGERNON LAWRENCE ...	Newby Estate Office, Ripon, Yorkshi
3348	1898, Oct. 29	*¶BERRY, CHARLES WINDSOR ...	1, South Bank Terrace, Surbiton, Sur
3957	1902, Oct. 28	*BERRY, HENRY FRANK	West House, St. Vincent Road, Southe on-Sea, Essex.
3349	1898. Oct. 29	*BETENSON, FREDERIC ROGER ...	13, Great James Street, Bedford Row, W
3792	1901, Oct. 29	*BETTGER, HAROLD ALFRED... ...	3, Warwick House Street, Cock Street, S.W.
3350	1898, Oct. 29	*BETTRIDGE, JOHN CHARLES LEBON	Salterton, Merton Hall Road, Mert S.W.
3351	1898, Oct. 29	*BIBBEY, THOMAS	Surveyor's Office, Audley, Staffordshi
3196	1897, Oct. 26	*¶BICKFORD, JOSEPH GRANT ...	50, Kenilworth Court, Putney, S.W.
3644	1900, Oct. 30	*¶BINGHAM, WILLIAM RAPER ...	2, The Hermitage, Richmond, Surrey.
4136	1903, Oct. 28	*¶BINNS, HENRY WILLIAM	Grosvenor Buildings, Richmond, Surr
3199	1897, Oct. 26	*¶BLACKSHAW, CHARLES	3, Victoria Mansions, Grange Ro Willesden Green, N.W.
4137	1903, Oct. 28	*BLAKE, ALFRED NORMAN	24, Parliament Hill, Hampstead, N.W.
4138	1903, Oct. 28	*¶BLISS, FRANCIS GEORGE	106, Cheapside, E.C.
3793	1901, Oct. 29	*¶BLISS, THEODORE STEPHEN ...	Middleton Stoney, Bicester, Oxon.
3958	1902, Oct. 28	*BLORE, CHARLES GORDON	Idsworth Estate Office, Hornde Hampshire.
2935	1895, Oct. 24	*¶BLOUNT, EDWARD	4, Frederick's Place, E.C.
1283	1885, Dec. 7	*BLUNDELL, HARRY, A.M.I.C.E. ...	Engineer's Office, Cheshire Lines R way, Central Station, Liverpool.
4139	1903, Oct. 28	*BLUNT, FRANCIS EDWARD	44, Aubrey Street, Liverpool, Lancash
3352	1898, Oct. 29	*BLYTH, GEORGE ALFRED	24, Lonsdale Road, Barnes, S.W.
3646	1900, Oct. 30	*BLYTH, HAROLD KING	Okus Farm, Swindon, Wilts.
3959	1902, Oct. 28	*BOAZMAN, HENRY, JUN.	Survey Department, Kampala, Uga East Africa.
3077	1896, Oct. 28	*BODEN, MAURICE	133, Finchley Road, N.W.
2570	1893, Oct. 4	*BODGER, PERCY MORRIS	Alexander Lodge, 4, St. Faith's L Norwich, Norfolk.
1159	1884, May 5	BOND, FREDERICK GEORGE... ...	Old Bank House, Ipswich, Suffolk.
2936	1895, Oct. 24	*BOORD, WALTER BERTRAM... ...	Bewerley, Pateley Bridge, Yorkshir
3512	1899, Oct. 30	*¶BOOTH, ERNEST WITTON	Borough Engineer's Office, Croy Surrey.
3078	1896, Oct. 28	*BÖSHER, VICTOR EVANS	13, Gray's Inn Square, W.C.
3960	1902, Oct. 28	*BOULTON, CHARLES VALENTINE ...	17, Wandle Road, Upper Tooting, S
3647	1900, Oct. 30	*BOURCHIER, CLAUD J.	Charleville, Estate Office, Tulla Kings' County, Ireland.
1331	1885, Dec. 6	*BOUSFIELD, EDWIN VAUGHAN DAVENPORT...	99, Gresham Street, E.C.
2133	1891, May 23	*BOWDEN, ERNEST NEWTON	Mitford House, Brooklands, Cheshi
1523	1888, Dec. 10	*BOWER, ARTHUR WENTWORTH CHIVERS	Moat Hall, Ouseburn, Yorkshire.

No.	Date of Election.	PROFESSIONAL ASSOCIATES.	Address.
1901	1902, Oct. 28	*¶BOYTON, BERTRAM ALFRED ...	Messrs. Boyton, Pegram, and Buck master, Walham Green, S.W., and 70 Coleman Street, E.C.
1923	1899, Oct. 30	*¶BRADSHAW, ARTHUR GEORGE...	7, Gage Street, Lancaster.
1879	1896, Oct. 28	*BRADSHAW, ARTHUR STANLEY ...	Borough Surveyor's Office, Town Hall Bedford.
1902	1902, Oct. 28	*¶BRADSHAW, HAROLD CLAUD ...	Tylney Hall Estate Office, Rotherwick Winchfield, Hampshire.
1903	1902, Oct. 28	*¶BRAMLEY, FRANCIS HERBERT	Claremont Crescent, Sheffield, Yorkshire.
1914	1899, Oct. 30	*BRAND, EDMUND	The Club, Mombasa, British East Africa Protectorate.
1904	1902, Oct. 28	*BREALEY, REGINALD WOODHOUSE	Rose Bank, Leek, Staffordshire.
1929	1901, Oct. 29	*¶BRENT, THOMAS...	51, Station Road, Redhill, Surrey.
1891	1891, Jan. 17	*BREVETOR, THOMAS	28, Eldon Street, E.C.
1883	1889, Dec. 9	*BRIDGFORD, LEO APPLETON ...	28, Cross Street, Manchester.
1923	1900, Feb 23	*¶BRIDGEWATER, CLEMENT JOSEPH BENTLEY	80, Cheapside, E.C.
1948	1900, Oct. 30	*¶BRIERLEY, HUGH COLLEY ...	Estate Office, Midland Railway, Derby.
1874	1887, Feb. 21	*BRIGGS, JOHN...	13, Cavendish Road, Clapham Common S.W.
1949	1900, Oct. 30	*BRIMACOMBE, CHARLES SEYMOUR	5, Worcester Gardens, Clapham Common, S.W.
1960	1903, Oct. 28	*BRISTOW, ROBERT C.	Works Department, H.M. Dockyard Malta.
1935	1902, Oct. 28	*BROAD, SYDNEY LOWTHER	33, Benbow Road, Hammersmith, S.W.
1941	1903, Oct. 28	*BROADBENT, WILLIAM	Hopwood, Horsforth, near Leeds, Yorkshire.
1915	1899, Oct. 30	*¶BROOKER, FREDERICK GEORGE	Elm Bank, Sevenoaks, Kent.
1916	1899, Oct. 30	*BROOKS, WILLIAM NATHANIEL ...	White Lodge, Thoresby Park, Ollerton Newark.
1962	1903, Oct. 28	*BROOME, DOUGLAS FRANK	23, Aubert Park, Highbury, N.
1917	1884, Jan. 28	BROWN, ALEXANDER	Home Farm, Hothfield, Ashford, Kent.
1918	1899, Feb. 16	*BROWN, ARTHUR FREDERICK ...	17, Cheyne Gardens, Chelsea, S.W.
1919	1902, Oct. 28	*BROWN, JAMES CARTER	South Eastern Agricultural College Wye, Kent.
1920	1901, Oct. 29	*BROWN, JOHN...	Abingdon Street, Northampton.
1921	1902, Feb. 21	*BROWN, LESLY JOHN	14, St. John's Wood Road, N.W.
1922	1898, Oct. 29	*BROWN, THOMAS, JUN.	67, Lowther Street, Whitehaven, Cumberland.
1923	1887, Dec. 19	*BROWN, WILLIAM EDWARD... ...	"Langla," Rosslyn Rd, Watford, Herts. and 22, Savile Row, Regent Street W.
1924	1894, Feb. 23	*BROWN, WILLIAM LOBIN TRANT	332, High Road, Kilburn, N.W.
1925	1901, Oct. 29	*BROWNE, EUSTACE MONTAGUE ...	Diggers Rest, Barberton, B.S.A.

Dip. No.	Date of Election.	PROFESSIONAL ASSOCIATES.	Address.
3650	1900, Oct. 30	*BROWNING, EGBERT GEORGE ...	Royal Engineer Office, Curragh Ca Ireland.
3798	1901, Oct. 29	*BROWNING, SYDNEY BRODRICK ...	Farnah House, Duffield, near Derby.
2656	1894, Oct. 30	*BRUCE, ALEXANDER DAVID... ...	Elvetham Estate Office, Winchfie Hants.
3517	1899, Oct. 30	*¶BRUTON, BASIL VASSAR	Albion Chambers, King St., Gloucest
3651	1900, Oct. 30	*¶BRUZAUD, GEORGE JOSEPH ...	Llanstephan, Springfield Meadows, We bridge, Surrey.
3652	1900, Oct. 30	*BRYAN, ARTHUR	Church Avenue, Water Orton, Warwic shire.
944	1883, May. 21	BUCKLAND, WILLIAM THOMAS ...	9, Whitehall Place, S.W.
3799	1901, Oct. 29	*BUCKLEY, ALFRED EUSTACE ...	George Street Chambers, Halifax, Yo shire.
3800	1901, Oct. 29	*BUCKWELL, ROBERT LEIGHTON ...	Newington Vicarage, Hythe, Kent.
1691	1890, Jan. 6	*BULBECK, GEORGE	Clanfield, 84, Elms Road, Clapham Pa S.W.
3801	1901, Oct. 29	*BULL, THOMAS HENRY...	London County Council, Architect's D partment, S.W.
3653	1900. Oct. 30	*BULLEY, HORACE WILLIAM... ...	41, Polsloe Road, Exeter, Devon.
2508	1892. Nov. 28	*BURDER, REGINALD EDWARD CAMPBELL	Harper Adams Agricultural Colle Newport, Shropshire.
4143	1903, Oct. 28	*BURGE, ARTHUR JOHN	428, Wandsworth Road, S.W.
3654	1900. Oct. 30	*BURMAN, WILLIAM	Estate Office, Kiveton Park, n Sheffield.
3968	1902, Oct. 28	*¶BURNETT, JOHN	Gopsall, Atherstone, Leicestershire.
4300	1904. Feb. 18	BURR, EDMUND JOHN	8, Montague Street, Russell Squa W.C.
3204	1897. Oct. 26	*¶BURROWS, FRANK HERBERT ...	41, Bank Street, Ashford, Kent.
4141	1903, Oct. 28	*BURSTOW, RALPH HENRY	21, Station Road, Hailsham, Sussex.
1412	1887. Dec. 19	*BUSS, FLEETWOOD GEORGE WILLIAM	4, Verulam Buildings, Gray's Inn, W
3358	1898, Oct. 29	*BUTCHER, THOMAS EWEN	Park View Villas, Chesham, Bucki hamshire.
2941	1895, Oct. 24	*BUTLER, RICHARD PIERCE	Ballin Temple, Tullow, Co. Carlow.
3518	1899. Oct. 30	*BUTTENSHAW, ERNEST NEWTH ...	South View, Sunnyside, St. Albans, He
1160	1884, May 5	BUTTERWORTH, JOSIAH	Mansfield, Notts.
3802	1901, Oct. 29	*¶CABLE, CHARLES VINCENT ...	The Turret, Hartley Wintney, Hampsh
2658	1894, Oct. 30	*CAMBRIDGE, WILLIAM JAMES ...	Heckford Lodge, Eaton Hastings, Far don, Berks.
4110	1903, Feb. 20	*¶CANCH, THOMAS RICHARD ...	Portland Estate Office, Kilmarn Ayrshire.

Date of Election.	PROFESSIONAL ASSOCIATES.	Address.
1902, Oct. 28	*¶CANDY, WALTER EMMANUEL ...	Encombe, Wareham, Dorset.
1882, Apr. 24	CARD, HENRY	North Street, Lewes, Sussex.
1899, Feb. 16	*CARGILL, CAMPBELL FEATHERSTON	198, Blythe Road, W.
1902, Oct. 28	*CARR, ARTHUR BENTLEY	Cold Springs, Buxton, Derbyshire.
1898, Oct. 29	*¶CARR, HERBERT FRANCIS ...	14, Jesse Terrace, Reading, Berks.
1887, Dec. 19	*CARTER, ALFRED PRESLEY	Rosslyn, Rectory Road, Rickmansworth, Herts.
1897, Oct. 26	*CASSIN, CHARLES LANGA	Mayfield, 94, Catford Hill, S.E.
1896, Oct. 28	*CATHCART, ARCHIBALD HAMILTON, THE HON.	31, Grosvenor Place, S.W.
1901, Oct. 29	*CATLEUGH, WILLIAM DENZIL ...	"Clyffe," Richmond Wood Road, Bournemouth, Hants.
1903, Feb. 20	*¶CATON, THOMAS LINFIELD ...	82, Acre Lane, Brixton, S.W.
1898, Oct. 29	*CHADWICK, SPENCER	2, Pall Mall East, S.W.
1889, Jan. 28	*CHALCRAFT, HENRY TERRELL ...	48, Bishopsgate Street Within, E.C.
1901, Oct. 29	*CHAMBERLAIN, CHARLES	c/o. Donald Pearce, P.O. Box 1122, Jubilee Gold Mine, Johannesburg, B.S.A.
1902, Oct. 28	*¶CHAMPERNOWNE, AMYAS WALTER	Sidbury Manor Estate Office, Sidbury, Sidmouth, Devonshire.
1893, Oct. 4	*CHAMPION, GEORGE ERNEST ...	Redwall Farm, Linton, Kent.
1902, Oct. 28	*¶CHANDLER, JOHN	Bank Chambers, Finchley, N.
1883, Dec. 17	CHAPMAN, VAUGHAN GODFREY ST. JOHN	82, Queen Street, E.C.
1901, Feb. 21	*CHARLES, MICHAEL THOMAS, B.A. (*Cantab*)	Pelsall Hall, near Walsall, Staffordshire.
1903, Oct. 28	*CHARTRES, FREDERICK WILLIAM CHARLES	West Rudham, King's Lynn, Norfolk.
1901, Oct. 29	*CHATTELL, ARTHUR PAUL	29A, Lincoln's Inn Fields, W.C.
1888, Dec. 10	*CHENEY, EDWIN JOHN, M.A. (*Cantab*)	Brooks Hall, Ipswich, Suffolk.
1900, Oct. 30	*¶CHESTERTON, SIDNEY JAMES ...	140, Kensington High Street, W.
1892, Nov. 28	*CHILD, CHARLES	Slinfold, near Horsham, Sussex.
1888, Dec. 10	*CHILD, EDMUND HERBERT, A.R.I.B.A.	12, Middle Pavement, Nottingham.
1903, Feb. 20	*¶CHILWELL, CHARLES VYVYAN	7, Cambridge Terrace, Hyde Park, W.
1897, Oct. 26	*CHIPP, GEORGE	Fontmell Magna, Shaftesbury, Dorset.
1899, Oct. 30	*CHURCH, GEOFFREY REDMORE ...	63, Belsize Park, N.W.
1903, Oct. 28	*CLARK, HERBERT	Cornwall House, Bank Street, Tonbridge, Kent.
1903, Oct. 28	*¶CLARK, HUDSON OWEN	c/o W. Houghton, 58, Old Broad Street, E.C.
1898, Oct. 29	*¶CLARK, NATHANIEL, JUN. ...	Tanfield Hall, Tantobie, R.S.O., Durham.
1897, Oct. 26	*CLARKE, CHARLES WENTWORTH	146, Fellows Road, South Hampstead, N.W.

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521	1899, Oct. 30	*¶CLARKE, LEONARD EUSTACE ...	Corgrig Lodge, Foynes, Co. Limerick.
426	1876, Feb. 7	CLAYDEN, WALTER	6, Moorgate Street, E.C.
1143	1903, Oct. 28	*CLEMENTS, CYRIL JOHN	11, Park Avenue, Mansfield, Nottin hamshire.
3659	1900, Oct. 30	*CLUNN, THOMAS HENRY GWYTHER	Department of the Interior, To graphical Survey Branch, Ottav Canada.
4302	1904, Feb. 18	*COATES, LAURENCE CALVERT	c/o Messrs David Burnett & Co., 1 Nicholas Lane, E.C.
4119	1903, Oct. 28	*COATES, P. BREVITT	North Curry, Taunton.
3660	1900, Oct. 30	*COBB, HENRY ALFRED WILLIAM	197, Barcombe Avenue, Streatham Hi S.W.
3973	1902, Oct 28	*¶COBB, HENRY FREDERICK ...	Higham, Kent.
3807	1901, Oct. 29	*¶COBB, ROBERT	Higham, near Rochester, Kent.
3211	1897, Oct. 26	*COBBE, HENRY ALEXANDER ...	Hatfield, Herts.
3974	1902, Oct. 28	*COCKE, EDMUND SIDNEY DEAN ...	2, Liverpool Road, Ealing, W.
3808	1901, Oct. 29	*¶COCKS, JOHN FREDERICK... ...	Hertford.
3809	1901, Oct. 29	*COKER, HARRY REGINALD ELLIS	The Homestead, 140, East Dulwich Gro London, S.E.
3975	1902, Oct. 28	*COKER, RALPH HECTOR	10, Dufferin Avenue, South Circu Road, Dublin.
3365	1898, Oct. 29	*COLE, FRANCIS JOSEPH...	Director of Works Department, H. Dockyard, Chatham, Kent.
3976	1902, Oct. 28	*¶COLE, HERBERT COVINGTON ...	Greta House, Church End, Finchley,
3523	1899, Oct. 30	*¶COLE, JAMES THOMSON	Fell Court, Torquay, Devonshire.
3810	1901, Oct. 29	*¶COLES, JAMES HATCH	Care of Messrs. Harland and Son, Bar Hertfordshire.
1202	1884, May 26	COLLIER, ARTHUR CHARLES ...	5, Lancaster Place, Strand, W.C.
4150	1903, Oct. 28	*COLLYER, CHARLES ALEXANDER STEWART	Estate Office, Ockham, Ripley, Surre
3811	1901, Oct. 29	*COLLIS, ERNEST ALBERT	65, Brunswick Street, Sheffield, Y shire.
1831	1890, May 29	*COLLYER, DANIEL WILLIAM ...	49, Miller Arcade, Preston, Lancash
3366	1898, Oct. 29	*CONSTABLE, JOHN	55 & 56, Chancery Lane, W.C.
3812	1901, Oct. 29	*¶COOK, CECIL NEWTON	Care of the Manager, Bank of Af Cape Town, South Africa.
3524	1899, Oct. 30	*¶COOK, EDWARD ARTHUR	Dennington Lodge, Framlingham, Su
3662	1900, Oct. 30	*COOK, FREDERICK CHARLES ...	Council Offices, Nuneaton, War shire.
3212	1897, Oct. 26	*COOKE, FREDERICK ROPER	4, Quex Road, High Road, Kilburn,
2510	1892, Nov. 28	*COOKE, LIONEL	66, Cannon Street, E.C.
3663	1900, Oct. 30	*¶COOKE-YARBOROUGH, ORFEUR FREDERIC	Campsmount, Doncaster, Yorkshire
3664	1900, Oct. 30	*¶COOPER, GEORGE AUGUSTUS ...	Messrs. Newman, 33 and 34, S Row, W., and 25, Carminia I Balham, S.W.

	Date of Election.	PROFESSIONAL ASSOCIATES.	Address.
[illegible]	1901, Oct. 29	*¶COOPER, HARRY THOMAS... ...	7, St. James's Street, S.W.
[illegible]	1900, Oct. 30	*COPE, GERALD HARWOOD	Halkyn Castle Estate Office, Halkyn, North Wales.
[illegible]	1898, Oct. 29	*¶COPE, WILLIAM GEORGE	8, Orchard Street, Portman Square, W.
[illegible]	1900, Oct. 30	*¶CORBETT, JOHN ROOKE, M.A. (*Cantab.*)	9, Albert Square, Manchester.
[illegible]	1895, Oct. 24	*CORFIELD, THOMAS	212, Brockley Road, S.E.
[illegible]	1903, Oct. 28	*CORNWELL, WILLIAM JAMES ...	209, Duke Street, Barrow-in-Furness, Lancashire.
[illegible]	1903, Oct. 28	*COTTAM, HARRY	Messrs. Garlick, Sykes, & Catterall, 33, Winckley Square, Preston, Lancashire.
[illegible]	1897, Oct. 26	*COUNCELL, THOMAS JAMES	Hospital Street, Cradock, Cape Colony, South Africa.
[illegible]	1895, Oct. 24	*COWELL, HERBERT LEE	Central Chambers, Newquay, Cornwall.
[illegible]	1896, Oct. 28	*¶COWIN, NORRIS TYNWALD ...	28, Shortmarket Street, Cape Town, B.S.A.
[illegible]	1882, Feb. 13	COWPER, RICHARD WILLIAM ...	81, High Street, Sittingbourne, Kent.
[illegible]	1893, Oct. 4	*COX, REGINALD JOHN	19, Preston Street, Brighton, Sussex.
[illegible]	1902, Oct. 28	*¶CRABTREE, PERCY	9, Derwent Street, Leigh, Lancashire.
[illegible]	1899, Oct. 30	*¶CRAGG, GEORGE EDWIN	Cayley Estate Office, Wynnstay Chambers, Colwyn Bay, Denbighshire.
[illegible]	1900, Oct. 30	*CRAMPHORN, CHARLES HUBERT	69, Byne Road, Sydenham, S.E.
[illegible]	1894, Oct. 30	*CREGEEN, HUGH STOWELL, JUN....	"Ashdene," Enslin Road, Eltham, S.E
[illegible]	1881, Mar. 21	CRESSWELL, JOHN THEODORE ROSE	9, Whitehall Place, S.W.
[illegible]	1900, Oct. 30	*CROCKATT, HARRY	36, Mostyn Street, Llandudno, N. Wales
[illegible]	1899, Oct. 30	*CROFT, GEORGE HERBERT	10, Sussex Square, Brighton, Sussex.
[illegible]	1899, Oct. 30	*CROOK, HOLLIS AUGUSTUS	6, Elm Gardens, Hammersmith, W.
[illegible]	1894, Oct. 30	*CROSIER, CHARLES	The Estate Office, 6, Chestnut Road West Norwood, S.E.
[illegible]	1886, Dec. 6	*CROSLAND, WALTER	Estate Office, Buscot Park, Faringdon Berks.
[illegible]	1896, June 2	*CROZIER, GEORGE FRANCIS... ...	Sallowmount, Ballinasloe, Co. Galway.
[illegible]	1901, Oct. 29	*CRUMP, EDWARD HAROLD	Urban District Council Offices, Inckley, Leicestershire.
[illegible]	1903, Oct. 28	*CRUMP, HAROLD	4, Narcissus Road, West Hampstead N.W.
[illegible]	1879, Mar. 17	CUDLIPP, WILLIAM	33, Poultry, E.C.
[illegible]	1901, Feb. 21	*¶CULLEN, FELIX VICTOR ...	9, Brambledown, Crouch Hill, N.
[illegible]	1903, Oct. 28	*CULVER, HERBERT GEORGE ...	46, Queen Victoria Street, E.C.
[illegible]	1883, Jan. 29	CUMBERBATCH, CARLTON PARRY	9, Whitehall Place, S.W.
[illegible]	1903, Oct. 28	*CUNDY, HENRY I....	91, The Grove, Stratford, Essex.
[illegible]	1897 Oct. 26	*CUSHEN, CHARLES OSMON	17, Finsbury Circus, E.C.

Dip. No	Date of Election.	PROFESSIONAL ASSOCIATES.	Address.
3217	1897, Oct. 26	*DADD, CHARLES JOHN THOMAS ...	London County Council, Spring Garden S.W.
945	1883, May, 21	DAFFARN, THOMAS ALFRED ...	12, St. George's Avenue, Tufnell Park, N.
3156	1897, Feb. 17	*DAFFORN, GEORGE BERTIE	1, Hill Side, Wimbledon, S.W.
3815	1901, Oct. 29	*DALE, EDWARD SYDNEY WILSON	Foddington, Babcary, Somerton, Somerset.
3930	1902, Feb. 21	*¶DALGLIESH, CHRISTOPHER ...	19, Church Street, Caversham, Reading, Berkshire.
3369	1898, Oct. 29	*DANCASTER, ARTHUR	"Goodwin," Richmond Park, Bournemouth, Hants.
3088	1896, Oct. 28	*¶DANIEL, HENRY WILKINSON ...	28, Victoria Street, Westminster, S.W.
3816	1901, Oct. 29	*¶DANIELL, FREDERICK STANLEY	13, Lexden Road, Colchester, Essex.
4156	1903, Oct. 28	*DARLEY, ROBERT BRADSHAW ...	Estate Office, Carrick-on-Shannon, Co. Leitrim.
2574	1893, Oct. 4	*DAVID, GEORGE WILLOUGHBY, B.A. (*Cantab.*)	Old Bank Chambers, 27, High St., Cardiff
3978	1902, Oct. 28	*¶DAVID, LEWIS WOOLLEY, B.A. (*Cantab.*)	Old Bank Chambers, 27, High Street, Cardiff, S. Wales.
3670	1900, Oct. 30	*¶DAVIDGE, WILLIAM ROBERT, A.R.I.B.A.	London County Council, 19, Charing Cross Road, W.C.
3219	1897, Oct. 26	*DAVIDSON, RICHARD BRUCE ...	10, Hardshaw Street, St. Helens, Lancashire.
3532	1899, Oct. 30	*¶DAVIES, JOHN WILLIAM SATTERLEY HUMPHREYS	15, Stanley Crescent, W.
4157	1903, Oct. 28	*DAVIES, LEONARD OWEN	11, Freeland Road, Ealing, W.
4158	1903, Oct. 28	*DAVIES, RHYS WILTSHIRE	37, Regent Circus, Swindon, Wiltshire
2139	1891, May 23	*DAVIS, NEVILLE B., A.M.I.C.E. ...	Waterworks Office, Leicester.
3157	1897, Feb. 17	*DAVIS, WILLIAM HENRY HAROLD	2, York Row, Wisbech, Cambridgeshire
3817	1901, Oct. 29	*DAVY, CLIFTON ROBERT	The Chestnuts, Maidenhead, Berks.
3979	1902, Oct. 28	*DAWKINS, ALBERT JAMES	30A, Queensmill Terrace, Fulham Palace Road, S.W.
946	1883, May 21	DAWSON, HENRY AUFRERE... ...	29, Lincoln's Inn Fields, W.C.
1008	1883, Dec. 17	DAWSON, WALTER HENRY	Forster Estate Office, Southend, Catford, S.E.
3818	1901, Oct. 29	*DEACON, STANLEY MARCUS... ...	The Croft, Brownlow Road, Croydon.
4159	1903, Oct. 28	*DEANE, GEORGE FREDERICK ...	16, Friar Street, Reading, Berkshire.
2731	1895, Mar. 6	*DELAMARE, FRANK	P.O. Box 946, Johannesburg, B.S.A.
3672	1900, Oct. 30	*DELISCHAFT, ADOLF HENRY ...	The Aboukir Coy., Ltd., Blue House, Schutz Ramleh, Alexandria, Egypt.
3980	1902, Oct. 28	*¶DENSHAM, JOHN BOON	Foxley, Purley, Surrey.
3534	1899, Oct. 30	*DICKINSON, JAMES MURGATROYD	Blackmoor, Liss, Hants.
3981	1902, Oct. 28	*¶DINWIDDY, CONRAD HUGH ...	12, Crooms Hill, Greenwich, S.E.
1528	1888, Dec. 10	*DIXON, FRANCIS EDWARD, A.M.I.C.E.	49, Lune Street, Preston, Lancashire.

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[illegible]	1901, Oct. 29	*DODD, HAROLD JAMES	The Glebe, Goring-on-Thames, Oxfordshire.
[illegible]	1902, Oct. 28	*¶DONNE, CYRIL HENRY	The Abbey Ruins, Bury St. Edmund's, Suffolk.
[illegible]	1897, Oct. 26	*DOUGLAS, BERNARD MOXON ...	10, Holywell Terrace, Shrewsbury.
[illegible]	1902 Oct. 28	*DRAKE, FRANK ARTHUR	15, Comeragh Road, West Kensington, W
[illegible]	1882, Feb. 13	DREW, ALLEN...	80, Cheapside, E.C.
[illegible]	1897, Oct. 26	*DREW, WALTER HUBERT	77, Royal Hospital Road, Chelsea, S.W.
[illegible]	1901, Oct. 29	*¶DRIVER, JOHN ROBERT FARRANT	Rothsay, Ramsbury Road, St. Albans, Hertfordshire.
[illegible]	1902, Oct. 28	*¶DROWER, EDMUND GILBERT ...	16, Great George Street, Westminster, S.W.
[illegible]	1894, Feb. 23	*DRUCE, EDRIC	County Agricultural Institute, Ridgmont, Aspley Guise, R.S.O., Bedfordshire.
[illegible]	1902, Oct. 28	*¶DUCHESNE, MARTIN COLLIER ...	Farnham Common, Slough, Buckinghamshire.
[illegible]	1900, Oct. 30	*DUDLEY, ROLAND	Harboro Hill, Gretton, Kettering, Northamptonshire.
[illegible]	1901, Oct. 29	*DUNDAS, FREDERICK JAMES ...	Bramley, Rotherham, Yorkshire.
[illegible]	1900, Feb. 23	*DUNT, JOHN HARLOW	44, Barrow Road, Streatham Common, S.W.
[illegible]	1900, Oct. 30	*¶EARLE, JOHN WILFRID	Mere, Knutsford, Cheshire.
[illegible]	1893, Oct. 4	*EASTON, WALTER JOHN	101, Mill Hill Road, Mill Hill Park, W.
[illegible]	1901, Oct. 29	*EASTWOOD, CHARLES WILLIAM ...	The Elms, Lowthorpe, East Yorkshire.
[illegible]	1901, Oct. 29	*EDGINGTON, WALTER, B.A. (*Oxon.*)	The Rectory, Boxford, Newbury, Berks.
[illegible]	1903, Oct. 28	*EGREMONT, JOHN	Merryfield, Buckfastleigh, South Devon.
[illegible]	1903, Oct. 28	*ELDER, ERNEST	9, Dimsdale Road, Westcombe Park, Blackheath, S.E.
[illegible]	1902, Oct. 28	*¶ELGAR, CHARLES JOHN	Crockshard, Wingham, near Dover, Kent.
[illegible]	1893, Oct. 4	*ELGAR, WALTER ROBINSON... ...	Park Road, Sittingbourne, Kent.
[illegible]	1898, Oct. 29	*¶ELIOTT, ARNOLD	Tokenbury, Liskeard, Cornwall.
[illegible]	1901, Oct. 29	*ELLIOTT, JOHN WILLIAM FARRANT	"Shadycombe," Salcombe, South Devon
[illegible]	1901, Oct. 29	*ELLIS, ARTHUR ORANGE	22, Courtenay Street, Plymouth, Devon
[illegible]	1900, Oct. 30	*¶ELLIS, RUPERT LUMLEY	Bello Sguardo, Great Malvern, Worcestershire.
[illegible]	1903, Oct. 28	*EVANS, CHARLES STOKES EATON	Avallenau, Haverfordwest, Pembrokeshire, South Wales.

ip Io.	Date of Election.	PROFESSIONAL ASSOCIATES.	Address.
950	1895, Oct. 24	*EVANS, ERNEST SYDNEY	Abbotsford, Worple Road, Wimbled S.W.
017	1896, Jan. 21	*EVANS, PERCIVAL BAKER	15, Baronsmead Road, Castlenau, Bar S.W.
377	1900, Oct. 30	*EVANS, RUPERT MAURICE	Phœnix Chambers, Stafford.
515	1892 Nov. 28	*EVERED, GILLIEBRAND ELWIN ...	Cunmor Buildings, 117, Christchu Road, Bournemouth, Hampshire.
516	1892, Nov. 28	*EVERETT, ARTHUR SHERMAN ...	14, Victoria Street, S.W.
326	1901, Oct. 29	*¶EVERY-CLAYTON, REGINALD ARTHUR ERIC	Blackmore Park Estate Office, Han Castle, Worcester.
567	1894, Oct. 30	*¶FAGG, EDWIN WILLIAM	44, Church Street, Kensington, W.
163	1903, Oct. 28	*FAIRCHILD, EDWARD JAMES ...	19, Charing Cross Road, W.C.
225	1897, Oct. 26	*FARNHAM, WILLIAM AUGUSTUS...	Surveyor to the Foot's Cray U.D. Council Offices, Sidcup, Kent.
164	1903, Oct. 28	*FENNING, JOHN HENRY	Fairfield, Ashburnham Road, Bedford
609	1881, Feb. 7	FEW, HARRY GARRARD	Haversham House, Putney, S.W.
374	1898, Oct. 29	*FIELD, CHARLES ROLAND	54, Borough High Street, S.E.
827	1901, Oct. 29	*FIELD, LEONARD MARTIN	Greenfield House, Gosport, Hants.
668	1894, Oct. 30	*FINCH, CLEMENT ROBERT	Clarendon Lodge, Watford, Herts.
093	1896, Oct. 28	*¶FISHER, ROBERT	37, Inman Rd., Craven Park, Harlesd N.W.
123	1884, Mar. 10	FITNESS, JOHN FRANCIS	80, Cheapside, E.C.
165	1903, Oct. 28	*FLATT, JOHN ALEXANDER	Care of Messrs. Furber, Price, & Furb 3, Warwick Court, Gray's Inn, W.C
044	1896, June 2	*FLEETWOOD, GEORGE SPALDING ...	3, New Court, Carey St., Lincoln's In W.C.
916	1883, Apr. 2	FLETCHER, GEORGE RIVERS ...	2, Basinghall Street, E.C.
769	1901, Feb. 21	*FLETCHER, HAROLD VENOUR ...	Care of T. Sturgess, Abou Kerh Egypt.
166	1903, Oct 28	*FLEURET, ALFRED HARMAN ...	125, High Holborn, W.C.
018	1896, Jan. 21	*FLIGHT, ALFRED	South Street, Epsom, Surrey.
989	1902, Oct. 28	*FORD, C. GRAHAM	Metropolitan Asylums Board, Emba ment, E.C.
888	1890, Nov. 22	*FORREST, WILLIAM	Windsor Estate Office, St. Fagans, Car
015	1896, June 2	*¶FOSTER, EDWARD CHARLES ...	54, Pall Mall, S.W.
375	1898, Oct. 29	*FOSTER, HENRY HELM	215, Balham High Road, S.W.
678	1900, Oct 30	*FOSTER, WALTER	54, Pall Mall, S.W.
829	1901, Oct. 29	*FOSTER, WILLIAM ARTHUR ...	Park View, Manchester Road, Accri ton, Lancashire.

Date of Election.	PROFESSIONAL ASSOCIATES.	Address.
1900, Oct. 30	*FOSTER, WILLIAM HOWARD... ...	The Council Offices, Milnrow, near Rochdale, Lancashire.
1901, Oct. 29	*FOTHERGILL, JAMES EDWARD ...	Town Hall, Brentwood, Essex.
1898, Oct. 29	*FOULKES, NOEL MACINTYRE ...	Dovers Green, Reigate, Surrey.
1899, Oct. 30	*¶FOWLER, ALFRED CHAS. STANLEY	9, Anson Road, Cricklewood, N.W.
1902, Oct. 28	*¶FOWLER, CYRIL JAMES	The Haven, 6, Alderbrook Road, Clapham Common, S.W.
1895, Mar. 6	*FOX, CHARLES EDWARD	7, Rawson Street, Halifax, Yorkshire.
1901, Oct. 29	*FRANCIS, JOHN, JUN.	Nott Square, Carmarthen, South Wales.
1902, Feb. 21	*FRANCIS, RONALD GARNHAM ...	Fir Villa, Western Road, Tring, Hertfordshire.
1899, Oct. 30	*FREEMAN, GEORGE	51, Alexandra Road, Wimbledon, S.W.
1901, Oct. 29	*¶FREEMAN, REGINALD FRANK LYNE	79, High Street, Ramsgate, Kent.
1902, Oct. 28	*¶FRENCH, CECIL GEORGE	London County Council, Spring Gardens, S.W.
1903, Oct. 28	*FRENCH, ARTHUR MARTIN	61, Douglas Road, Maidstone, Kent.
1900, Oct. 30	*FREUER, WILLIAM SAMUEL... ...	The Manor Farm, Grimston, King's Lynn, Norfolk.
1902, Feb. 21	*FROST, ALFRED CARDAIN	Sunnybank, Epsom Rd., Morden, Surrey.
1896, Oct. 24	*¶FUNNELL, HORACE FREDERICK	Hurstleigh, 35, Camberwell Grove, S.E.
1882, Feb. 13	FURBER, HENRY AUBREY	3, Warwick Court, Gray's Inn, W.C.
1902, Oct. 28	*¶GAHAN, ROBERT BERESFORD ...	Clifton House, Loughrea, Co. Galway, Ireland.
1903, Oct. 28	*GAIRDNER, KENNETH GREAME ...	Lyndhurst, Moss Lane, Pinner, Middlesex.
1890, Jan. 6	*GALSWORTHY, VINCENT SOMERS	29, Fleet Street, E.C.
1890, Nov. 22	*¶GARRARD, ARTHUR NORMAN ...	8, Frederick's Place, Old Jewry, E.C.
1894, Oct. 30	*GARRETT, ARTHUR BERRY... ...	16, Hanover Street, W.
1882, Jan. 16	GARROD, HERBERT JAMES	Cheveley, Newmarket, Cambridgeshire.
1897, Oct. 26	*GAYER, ALFRED EDWARD	Borough Engineer's Office, Pietermaritzburg, Natal, B.S.A.
1903, Oct. 28	*GENDERS, PERCY ROBERT	32, Crescent Grove, Clapham Common, S.W.
1899, Oct. 30	*¶GENGE, WILLIAM POPE, JUN. ...	46, London Road, East Grinstead, Sussex.
1896, June 2	*GETHIN, RANDOLPH GEORGE ..	Curraghmore, Portlaw, Co. Waterford, Ireland.
1901, Oct. 29	*GETTINGS, SYDNEY SALTER ..	The Mount, Chester Road Erdington, Birmingham.

Dip. No.	Date of Election.	PROFESSIONAL ASSOCIATES.	Address.
3671	1894, Oct. 30	*GILBERT, JOHN SAINSBURY... ...	70, Queen Street, Cheapside, E.C.
4303	1904, Feb. 18	*GILBERT, SAMUEL HOWELL ...	c/o Messrs. Norton, Trist, and Gil 70, Queen Street, Cheapside, E.C
3993	1902, Oct. 28	*GILLIES, JOHN JEFFREY	L.C.C., Parks Department, 11, Re Street, S.W.
3834	1901, Oct 29	*¶GIMSON, ALLEN	Clevelands, Love Lane, Pinner, Mi sex.
4170	1903, Oct. 28	*GLASIER, MORTIMER SACKVILLE	Edgecombe Hall, Wimbledon Park,
4171	1903, Oct. 28	*GLASSON, THOMAS MC...	Winsford Farm, Bideford, N. Devon
3835	1901, Oct. 29	*GLEED, HERBERT ALEXANDER ...	8 & 9, Martin's Lane, Cannon St E.C.
4172	1903, Oct. 28	*¶GLEED, PERCIVAL FRANCIS ...	Flodden House, Flodden Road, Ca well, S.E.
4173	1903, Oct. 28	*GLOAG, TOM KEEPING	36, Vardens Road, Clapham Junc S.W.
3378	1898, Oct. 29	*GOADBY, JOSEPH STUBBINS... ...	London County Council, 9, S Gardens, S.W.
4174	1903, Oct. 28	*GODDING, FRANK HORATIO... ...	33, Llanbleddian Gardens, Cardiff, morganshire.
3685	1900, Oct. 30	*¶GOODBODY, FREDERICK ALLEN STURGE	33, Corn Street, Bristol.
3994	1902, Oct. 28	*¶GOODCHILD, RALPH HARRY ...	15, Upper King Street, Norwich.
3836	1901, Oct. 29	*GOODCHILD, WALTER CHARLES ...	Downs Cottage, Lindford, Stand Liphook, Hampshire.
3543	1899, Oct. 30	*¶GOODMAN, ALFRED	35, Bucklersbury, E.C.
4175	1903, Oct. 28	*GOODWIN, HENRY ERNEST	56, Vesta Road, St. Katherine's New Cross, S.E.
4176	1903, Oct. 28	*GOODWIN, PERCY WORTHINGTON	Ansley, Atherstone, Warwickshire.
4177	1903, Oct. 28	*GORE, GEORGE PYM	Old Bank Buildings, Chester.
956	1883, May 25	GORE, WILLIAM JOLL	205, Wardour Street, W.
3837	1901, Oct. 29	*GOULD, HARMER	Brickendonbury, Hertford.
1669	1889, Dec. 9	*GRANT, JOSEPH	Avisford, Upper Addiscombe Croydon.
3229	1897, Oct. 26	*¶GRAY, HORACE NORMAN... ...	334, Commercial Road, E.
2583	1893, Oct. 4	*GRAY, PERCY WILLIAM	29, St. Andrew's Street, Cambridge
3096	1896, Oct. 28	*GREEN, ARTHUR EDWARD	58, North Street, Horsham, Sussex.
1012	1883, Dec. 17	GREEN, JAMES HENRY TOWNSEND	22, Chancery Lane, W.C.
1418	1887, Dec. 19	*GREEN, THOMAS JOHN	13, King Street, Maidstone, Kent.
3097	1896, Oct. 28	*GREENFIELD, FREDERICK JAMES	St. Cyprian's, Thurlow Hill, Tor Devon.
1230	1884, Dec. 8	*GREENOP, EDWARD, A.R.I.B.A. ...	Falcon Court, 32, Fleet Street, E.C
3230	1897, Oct. 26	*GREENWOOD, ERNEST	360, High Road, Chiswick, W.
4178	1903, Oct. 28	*GRIERSON, JOHN CAMPBELL ...	27, Newsham Drive, Liverpool.
4179	1903, Oct. 28	*¶GRIFFITHS, OWEN	22, Henrietta Street, Covent Ga W.C.

Date of Election.	PROFESSIONAL ASSOCIATES.	Address.
1892, Nov. 28	*GRIGGS, HENRY JENNER, A.R.I.B.A.	Metropolitan Bank Chambers, Newpor Monmouthshire.
1884, Ja . 28	GRIMWADE, HENRY	Colchester, Essex.
1900, Oct. 30	*GROVE, RICHARD THOMAS	St. Ives, Harpenden, Herts.
1902, Oct. 28	*GROVES, ARNOLD TUDOR	35, Ashley Road, Crouch Hill, N.
1900. Feb. 23	*GURNEY, RONALD GEORGE	Ledbury Rural District Council, Le bury, Herefordshire.
1903 Oct. 28	*HAGGER, GEORGE JOHN	Abbotsbury, Streatham Place, Strea ham Hill, S. .
1901, Oct. 29	*HAINES, ALFRED HUBERT JESTON	8, Cotham Road, Bristol.
1902, Oct. 28	*HALE, FRANCIS EDWARD	73, Castle Street, Salisbury, Wiltshire.
1884, Dec. 8	*HALKYARD, WILLIAM REDFORD	Oakfield, Styal Rd., Wilmslow, Cheshir
1900, Oct. 30	*HALL, AUGUSTUS WILLIAM	Valuation Office, 6, Ely Place, Dublin.
1884, May 19	HALL, CHARLES PELL (*Professional Associate of Council*) ...	Park Farm Office, Woburn, Beds.
1897, Oct. 26	*HALL, HENRY ALEXANDER THOMAS	26, Upper Leeson Street, Dublin.
1899, Oct. 30	*HALL, JOHN SEBASTIAN	General Valuation Office, Dublin.
1903, Oct. 28	*HALL, MONTAGUE PRESTON... ...	5, Wedderburn Road, Hampstead, N.W
1896, Oct. 24	*HALL, THOMAS BIDDLE...	30, Market St., Rugeley, Staffordshire
1882, Feb. 27	HAMILTON, JOHN PAYNTER	64 and 65, Coleman Street, E.C.
1900, Oct. 30	*¶HANCOCK, HENRY SYDNEY, JUN	Sydney Place, St. Austell, Cornwall.
1895, Oct. 24	*HANKEY, GILBERT LIONEL	Dunalasdair, Bourne End, Buckingha shire.
1892, Nov. 28	*HANKINSON, FRANCIS HENRY ...	Richmond Chambers, Bournemoutl Hants.
1903, Feb. 20	*HANSON, HAROLD	Holmwood, Edgerton, Huddersfiel Yorkshire.
1894, Oct. 30	*HARDIMAN, HARRY	59, Mount Pleasant Road, Hasting Sussex.
1887, Dec. 19	*HARDING, FREDERICK ALLCROFT	Willis's Rooms, King Street, St. Jame Square, S.W.
1895, Oct. 24	*HARDWICK, ARTHUR JESSOP ...	Eagle Chambers, Kingston-on-Thames.
1903, Oct. 28	*HARLAND, HENRY CHAPMAN ...	Montrose Estate Office, Catter Hous Drymen, Stirlingshire.
1900, Oct. 30	*HARLOW, WILLIAM WYATT RIDGWAY	City Surveyor's Office, Carlisle.
1881, Feb. 21	HARPER, EDGAR JOSIAH	Estate Office, London County Counci Spring Gardens, S.W.
1901, Oct. 29	*HARRIS, DOUGLAS...	19, York Buildings, Adelphi, W.C.

Dip. No.	Date of Election.	PROFESSIONAL ASSOCIATES.	Address.
2960	1895, Oct. 24	*HARRISON, CYRIL H. GILMORE ...	Mentmore Estate Office, Ledl Leighton Buzzard, Bucks.
3840	1901, Oct. 29	*HARRISON, ERNEST	"Westbrook," Bolton-le-Sands, Carnforth, Lancashire.
3311	1898, Feb. 18	*HARRISON, HENRY BEAUCHAMP...	Draycot Gardens, Sutton Benger, (penham, Wilts.
4183	1903, Oct. 28	*HARRISON, WILLIAM	104, Dickenson Road, Rusho Manchester.
3626	1900, Feb. 23	*¶HARTLEY, TOM PERCY	332, High Road, Kilburn, N.W.
2961	1895, Oct. 24	*HARVEY, FREDERICK CHARLES	1, Frithknowle Villas, Brockhurst I Gosport, Hampshire.
3380	1898, Oct. 29	*¶HASSETT, REGINALD CHARLES	14, Dering Street, New Bond Stree
2585	1893, Oct. 4	*HAWES, FREDERICK KIRK	Longlands, Holkham, Norfolk.
4184	1903, Oct. 28	*HAWKINS, EDWARD ROBINSON ...	Downham Market, Norfolk.
4185	1903, Oct. 28	*HAY, PERCY GILBERT	Totland, Clifton Road, Wallin Surrey.
4186	1903, Oct. 28	*HAYLLAR, SIDNEY HAYLLAR ...	Yew Cottage, Sydney Road, Hayw Heath, Sussex.
3841	1901, Oct. 29	*HAYWARD, ARTHUR BALDWIN ...	20, John Street, Adelphi, W.C.
2962	1895, Oct. 24	*HAYWOOD, SAMUEL SPENCER ...	Borough Engineer's Office, Brigl Yorkshire.
3997	1902, Oct. 28	*¶HAZLEDINE, JOHN TURNER CLOUGH	Burlton Hall, near Shrewsbury, S shire.
3234	1897, Oct. 26	*HEAD, WILLIAM ALFRED	Norfolk Lodge, Fentiman Rd. Cla S.W.
3692	1900, Oct. 30	*HEAL, HERBERT GEORGE	Sholing Lodge, Sholing, Southam Hants.
3998	1902, Oct. 28	*HEATH, JOHN LIONEL	Holt Manor Farm, Kintbury, Hu ford, Berkshire.
3999	1902, Oct. 28	*HEATHCOTT, ROBERT VERNON ...	West Horderns, Chapel-en-le- Derbyshire.
1287	1885, Dec. 7	*HEBBLETHWAITE, CHAS. HENRY	10, Waterhouse St., Halifax, York
3842	1901, Oct. 29	*¶HEBDEN, FRANCIS RADCLIFFE...	9, Whitehall Place, S.W.
1014	1883 Dec. 17	HEBDEN, GEORGE RADCLIFFE ...	8, Frederick's Place, Old Jewry, E
2678	1894, Oct. 30	*HECKFORD, HARLEY	Surveyors' Department, Council (High Street, Poplar, E.
588	1880, Dec. 13	HEDGER, ARTHUR CONSTANTINE	44, Charing Cross, S.W.
2526	1892, Nov. 28	*†HELLICAR, GEORGE THOMAS ...	80, Osbaldeston Rd., Stoke Newing
1353	1887, Jan. 10	*HENDERSON, RICHARD	Portland Estate Office, Kilmarnoc
4000	1902, Oct. 28	*HENNELL, FRANK GORDON	"Oakwood," Mayow Road, Fore S.E.
4187	1903, Oct. 28	*¶HENNIKER, FREDERICK SIBERT	6, Ousely Road, Balham Park S.W.
928	1883, Apr. 1	HENRY, EDWARD HUGH	62, High Street, Clapham, S.W.
4188	1903, Oct. 28	*¶HESKETT, WILLIAM DONALD ...	"The Hollies," Penrith, Cumberl

† Special Sanitary Science Certificate.

Date of Election.	PROFESSIONAL ASSOCIATES.	Address.
1893, Oct. 4	*HEWETT, GEORGE THOMPSON ...	143, High Street, Guildford, Surrey.
1902, Oct. 28	*¶HEWETT, RICHARD	Seale, near Farnham, Surrey.
1882, Dec. 18	HEWITT, WILLIAM...	Hampton Grange, Hereford.
1901, Oct. 29	*HICKMAN, ARTHUR MURHALL ...	Pride Hill Chambers, Shrewsbury, Salop.
1883, May 21	HICKS, STANLEY	29, Lincoln's Inn Fields, W.C.
1896, Oct 24	*HICKS, WILLIAM ROOKE	Town Hall, Ealing, W.
1900, Oct. 30	*¶HIDER, SYDNEY WILLIAM ...	80, Upper Tollington Park, Stroud Green, N.
1900, Oct. 30	*HILLIARD, HUGH NEVILLE	Chelmsford, Essex.
1901, Oct. 29	*HINCHLIFF, GEORGE STANLEY WHITMORE	56, St. Mary's Grove, Chiswick, W.
1883, Dec. 17	HINCHLIFFE, JOHN, JUN.	Bullhouse Hall, Penistone, Sheffield.
1899, Oct. 30	*¶HINCHSLIFF, EDWARD ROBERT	Barry Urban District Council, Council Office, Holton Road, Barry, Glamorganshire.
1899, Oct. 30	*HINDMARSH, MICHAEL ANSELM	Crag View, Alnwick, Northumberland.
1898, Oct. 29	*¶HINKS, HENRY	1, Gray's Inn Place, W.C.
1903, Oct. 28	*HINTON, HERBERT ARTHUR ...	"Belvedere," Shepherd's Hill, Highgate, N.
1900, Oct. 30	*HIPSLEY, FREDERIC WILLIAM ...	Fernleigh, Highbridge Road, Wylde Green, near Birmingham, Warwickshire.
1903, Oct. 28	*HOARE, ARTHUR J.	Local Government and Statistical Department, London County Council, Spring Gardens, S.W.
1898, Oct. 29	*HODGES, CECIL STUART	Fulbourn, Cambridge.
1890, Nov. 22	*HODGKINSON, JAMES HENRY ...	23, Delamere Street, Ashton-under-Lyne.
1898, Oct. 28	*HODGSON, ARCHIBALD SANFORD	Westons Place, Warnham, Sussex.
1883, Feb. 26	HOLBECHE, ÆMILIAN HENRY ...	c/o Woolley and Holbeche, Rectory Place, Loughborough, Leicestershire.
1903, Oct. 28	*HOLBECHE, NIGEL LAURENCE ...	21, Bennett's' Hill, Birmingham, Warwickshire.
1902, Oct. 28	*HOLBECHE, ROBERT CECIL	21, Bennett's Hill, Birmingham, Warwickshire.
1897, Oct. 26	*HOLBROW, HERBERT OLIVER ...	9, Clare Street, Bristol.
1903, Oct. 28	*HOLDITCH, CHARLES STANLEY ...	"Westover," Ivybridge, South Devon.
1891, Nov. 4	*HOLLIS, HERBERT	Public Works Department, Jamaica.
1891, Nov. 4	*HOLLIS, RALPH	Springfield, Skirlaugh, Hull, Yorkshire.
1894, Oct. 30	*HOLMES, JOHN EDWARD	309, Oxford Street, W.
1901, Oct. 29	*¶HOLMES, MONTAGU PRICE ...	33, Paternoster Row, E.C.
1902, Oct. 28	*¶HOME, PHILIP WOOLLATT	108, Queen's Road, Finsbury Park, N.
1898, Oct. 28	*HOMFRAY, HERBERT RICHARDS	20, Charles Street, Cardiff, Glamorganshire.
1900, Oct. 30	*¶HOOPER, ALFRED EGBERT ...	8, The Green, Marlborough, Wiltshire.

Dip. No.	Date of Election.	PROFESSIONAL ASSOCIATES.	Address.
1181	1884, May 19	HOOPER, ALFRED FREDERICK ...	1, Laura Villas, London Rd., An Hants.
3847	1901, Oct. 29	*¶HOPKINS, PERCY RAYNES ...	6, Ely Place, Dublin.
4193	1903, Oct. 28	*HORDER, GERALD MORLEY... ...	The Manse, Ealing, W.
3848	1901, Oct. 29	*¶HOSEGOOD, ANDREW WEBBER	Williton, Somerset.
4194	1903, Oct. 28	*HOUBLON, FRANCIS ARCHER ...	Hallingbury Place, Bishop's Stor Hertfordshire.
3698	1900, Oct. 30	*HOUGHTON, WILLIAM CHARLES ...	Pine Lodge, Whitehall Road, Woo Green, Essex.
4004	1902, Oct. 28	*¶HOW, HERBERT	43, Elgin Avenue, Maida Vale, W.
4304	1904, Feb. 18	*¶HOWARD, EDMUND	c/o Messrs. Harland and Son, Barnet, Herts.
836	1883, Jan. 15	HOWELL, ERNEST JOHN	116, Cromwell Road, S.W.
3549	1899, Oct. 30	*HOWGRAVE - GRAHAM, ALAN HERBERT	12, Willow Road, Hampstead, N.W.
3388	1898, Oct. 29	*HOWGRAVE - GRAHAM, GEORGE ERNEST	Box 6214, Johannesburg, South Afri
4305	1904, Feb. 18	*HOWKINS, FRANCIS	10, Queen Square, W.C.
3236	1897, Oct. 26	*¶HOWLAND, ARTHUR FRANK ...	30, Somerset Street, Portman Sq W.
3550	1899, Oct. 30	*¶HOWLAND, GEORGE	15, Heath Street, Hampstead, N.W.
3850	1901, Oct. 29	*¶HUBBLE, LLOYD UNSWORTH ...	The Elms, Hunton, Maidstone, Kent
3851	1901, Oct. 29	*HUDSON, WILLIAM FREDERICK ARTHUR	Fulbourne, near Cambridge.
3852	1901, Oct. 29	*HUNT, HARRY	Fair Oak Lodge, Horsell, Woking. Su
3552	1899, Oct. 30	*HURLBUTT, PERCIVAL	Dee Cottage, near Flint, North Wale
4005	1902, Oct. 28	*HUSKINSON, ERNEST AMPHLETT...	Epperstone, near Nottingham.
3237	1897, Oct. 26	*HUTCHINS, RICHARD	Estate Office, Ardnagashel, Bantry, Cork.
3853	1901, Oct. 29	*¶INGRAM, CECIL WALTER	15, George Street, Woburn R.S.O., fordshire.
4195	1903, Oct. 28	*INGRAM, JAMES FRANCIS	2, St. Andrews Place, Lewes, Susse
1893	1890, Nov. 22	*INNES, GILBERT PLANTAGENET MITCHELL	Tredegar Estate Office, Newport, mouthshire.
4006	1902, Oct. 28	*INSLEY, GEORGE PITRON	"Old Studley," Wimborne Road, Bo mouth, Hampshire.
2681	1894, Oct. 30	*IRVINE, ARCHIBALD WYNDHAM	Engineer in Chief's Office, C. G. Rail Cape Town.

† Special Sanitary Science Certificate.

Date of Election.	PROFESSIONAL ASSOCIATES.	Address.
1894, Oct. 30	*JACKSON, ALFRED ERNEST	City Surveyor's Office, Manchester.
1894, Oct. 30	*JACKSON, EDWARD HENRY	Windermere Buildings, Windermere, Westmoreland.
1895, Oct. 24	*JACKSON, LEONARD LABREY ...	Exchange Buildings, Bradford, Yorks.
1902, Oct. 28	*¶JACKSON, RICHARD STEPHENS	High Street, Sittingbourne, Kent.
1898, Oct. 29	*JACKSON, ROBERT EWAN	Hall Gowan, Carnforth, Lancashire.
1902, Oct. 28	*¶JAMES, HERBERT HAROLD ...	The Moat, Newmarket Road, Cambridge.
1902, Oct. 28	*JAMESON, CECIL WILLIAM	9, Ely Place, Dublin.
1894, Feb. 23	*JARRETT, THOMAS WILLIAM ...	124, East Street, Sittingbourne, Kent.
1903, Oct. 28	*JARVIS, ERNEST CORY...	33, Louisville Road, Upper Tooting, S.W.
1902, Oct. 28	*JEFFERY, FRANCIS WILSON... ...	2, St. Helen's Park Road, Hastings, Sussex.
1879, Nov. 24	JESSETT, CHARLES...	3, Great St. Helen's, E.C.
1891, Nov. 4	*JESSETT, CHAS. EDWARD VERNON	26, Sarsfeld Road, Balham, S.W.
1900, Oct. 30	*JOHNSON, FREDERICK JOHN ...	The Ferns, Coldfall Avenue, Muswell Hill, N.
1897, Oct. 26	*JOHNSON, HARRY LABRON	9, Grafton Road, New Brighton, Cheshire.
1903, Oct. 28	*JOHNSON, WILLIAM INGLIS	14, Barn Hill, Stamford, Lincolnshire.
1900, Oct. 30	*JOLLY, PEARSON ALEXANDER ...	Apethorpe Estate Office, Wansford, Northamptonshire.
1900, Oct. 30	*¶JONAS, HAROLD DRIVER	23, Pall Mall, S.W.
1902, Oct. 28	*¶JONAS, ROBERT COLLIER	23, Pall Mall, S.W.
1887, Feb. 21	*JONAS, SAMUEL MARSHALL... ...	27, Market Hill, Cambridge.
1900, Oct. 30	*¶JONES, ARTHUR BAYLY	50, Threadneedle Street, E.C.
1902, Oct. 28	*JONES, ARTHUR ERNEST	Newcastle, Staffordshire.
1898, Oct. 29	*JONES, JOHN ARTHUR	Works Department, H.M. Dockyard, Sheerness, Kent.
1902, Oct. 28	*¶JONES, JOHN RICE	1, The Grove, Swansea, Glamorganshire.
1898, Oct. 29	*JONES, PERCY EVERLEY	1, Prince's Street, Westminster, S.W.
1899, Oct. 30	*JONES, PHILIP VIVIAN	"Hazeldene," Hengoed, via Cardiff.
1883, Dec. 17	JORDAN, GEORGE HENRY	10, Little College Street, Westminster, S.W.
1891, Nov. 4	*JOYCE, HARRY WARD	Wood Street, Ashby-de-la-Zouch, Leicestershire.
1902, Oct. 28	*¶JULL, ROBERT CHARLES	1, Cumberland Gardens, Tunbridge Wells, Kent.
1886, May 17	*JULL, WILLIAM VINCENT	8, Delahay Street, S.W.

Dip. No.	Date of Election.	PROFESSIONAL ASSOCIATES.	Address.
1894	1890, Nov. 22	*KAY, WALTER ROBERT	Athol Street, Douglas, Isle of Man.
3704	1900, Oct. 30	*KAYE, HERBERT	34, Cleveland Road, Edgerton, Hud field, Yorkshire.
2969	1895, Oct. 24	*KEAY, WILLIAM	6, Milstone Lane, Leicester.
4016	1902, Oct. 28	*KEELE, JOHN DANIEL	81, St. Paul's Road, Highbury, N.
2687	1894, Oct. 30	*¶KEEP, WILLIAM HENRY	4, Henrietta Street, Covent Ga W.C.
3854	1901, Oct. 29	*KEIGHLEY, SAMUEL	27, Nicholas Street, Burnley, Lancas
3855	1901, Oct. 29	*KELLEWAY, HERBERT DAVIES ...	1, Cockspur Street, S.W.
3705	1900, Oct. 30	*¶KELLY, ARTHUR RALPH	5, Camden Square, N.W.
3554	1899, Oct. 30	*KELLY, GEORGE WILLIAM CALVER	Ainsty Estate, Broomhill, Weth Yorkshire.
3706	1900, Oct. 30	*KEMSLEY, NORMAN BOLTON ...	17, Finsbury Circus, E.C.
2970	1895, Oct. 24	*KEMSLEY, WILLIAM HUGH	17, Finsbury Circus, E.C., and W ford Green, Essex.
2590	1893, Oct. 4	*KENNETT, CHARLES ARTHUR ...	13, Hart Street, Bloomsbury Sq W.C.
4198	1903, Oct. 28	*KENT, PHILIP, JUN.	Rhos Fynach, Rhos-on-Sea, Colwyn Denbighshire.
4199	1903, Oct. 28	*KER, ARTHUR PRESTON	Cattle Market, Hexham, Northum land.
1077	1884, Jan. 28	KERR, ARTHUR HERBERT	Blake Street, York.
4200	1903, Oct. 28	*KERR, NORMAN MUNRO	13, Athole Gardens, Kelvinside, Glas
3104	1896, Oct. 28	*KEY, ASTLEY COOPER	P.O. Box 930, Johannesburg, B.S.A.
3241	1897, Oct. 26	*¶KIBBLEWHITE, HENRY JAMES TRELEAVEN	Gloucester House, 19, Charing Road, W.C.
2688	1894, Oct. 30	*KIESER, WILLIAM HENRY GUSTAV	City Engineer's Office, Bristol, Glo tershire.
3395	1898, Oct. 29	*KINCAID, HERBERT EDWARD ...	7, Leinster Street, Dublin.
3856	1901, Oct. 29	*KING, FREDERICK AUGUSTUS ...	11, Carleton Road, Tufnell Park, N.
3555	1899, Oct. 30	*KING, WALTER NIKE	9, Southgate, Wakefield, Yorkshire
1387	1887, Mar. 21	*KING, WILLIAM ISAAC	The Elms, Rickmansworth, Herts.
3707	1900, Oct. 30	*¶KNIBB, FREDERICK CHARLES ...	47, Broxash Road, West Side, Cla Common, S.W.
4201	1903, Oct. 28	*KNIGHT, FREDERICK WILLIAM ...	13, Victoria Street, S.W.
3556	1899, Oct, 30	*¶KNOWLES, GEORGE POTTER ...	Gloucester House, 19, Charing Road, W.C.
4306	1904, Feb. 18	*KNOX, LEONARD NEEDHAM ...	19, Bryanstone Mansions, W.
4202	1903, Oct. 28	*LABDON, HERBERT GEORGE ...	c/o Box 691, Cape Town, S.A.
3557	1899, Oct. 30	*LAIRD, NINIAN P.	Thurnby, near Leicester.
3857	1901, Oct. 29	*¶LAKE, RALPH JULIAN	Heage House, Crouch Hill, N.

Date of Election.	PROFESSIONAL ASSOCIATES.	Address.
1897, Oct. 26	*LAKE, VIVIAN DAVEY, A.M.I.C.E.	c/o. S. Pearson and Son, Seaham Harbour, Durham.
1902, Oct. 28	*LAMBERT, ARTHUR JOHN	8, Upper Gloucester Place, Dorset Square, N.W.
1903, Oct. 28	*¶LAMBERT, GEORGE ARROW ...	Estate Office, Strathfieldsaye, Winchfield, Hampshire.
1895, Oct. 24	*¶LAMPRILL, WILLIAM THOMAS ..	12, The Chase, Clapham Common, S.W.
1903. Oct. 28	*LANCASTER, SAMUEL	5, Radnor Cliffe, Sandgate, Kent.
1902, Oct. 28	*LANDER, ROWLAND STANLEY ...	St. John's Lodge, Kensal Green, W.
1903, Oct. 28	*LANG, AUGUSTUS BERNARD DASHWOOD	3, King Street, Cheapside, E.C.
1902, Oct. 28	*LANG, FREDERICK BARTLETT ...	"Glengariff," Greenbank, Plymouth, Devonshire.
1901, Oct. 29	*¶LANGRIDGE, WALTER FREDERICK	The Broadway, Tunbridge Wells, Kent.
1900, Oct. 30	*LANHAM, LAURENCE	The Cottage, Dulwich Village, S.E.
1891, Jan. 17	*LANSDOWN, GEORGE ARTHUR ...	9, Regent Street, Waterloo Place, S.W.
1891, Mar. 14	*LARKIN, RICHARD WEBSTER ...	1, Victoria Street, S.W
1895, Oct. 24	*LAUMANN, MONTGOMERY PATRICK JOHN	Shute End, Wokingham, Berks.
1899, Oct. 30	*LAURENCE, WALTER BERNARD ...	51, Eardley Crescent, Earl's Court, S.W
1892, Feb. 26	*¶LAWLEY, FREDERICK WILLIAM	165, Strand, W.C.
1900, Oct. 30	*¶LAWLEY, GEORGE FRANK ...	8, Windsor Place, Goldington Road, Bedford.
1902, Oct. 28	*¶LAWRENCE, CHARLES PHILLIPS	Newton Rigg, Penrith, Cumberland.
1901, Oct. 29	*¶LAWRENCE, JOHN	Care of Messrs. Crawter, Cheshunt, Hertfordshire.
1898, Oct. 29	*LEAKE, ROBERT	Clevedon, 35, Hardwicke Road, Palmer's Green, N.
1896, Oct. 28	*LEANE, WALTER BURDITT	c/o. Pauling & Co., P.O. Box 713, Cape Town, South Africa.
1903. Oct. 28	*¶LEANING, AUBREY RUPERT SIDNEY...	22, Helix Road, Brixton, S.W.
1896, Oct. 28	*LEE, FRANCIS BLACKLOCK	The White House, Brampton, Cumberland.
1876, Apr. 3	LEE, GEORGE CANSFIELD	36, The Mount, York.
1896, Oct. 28	*LEE, HENRY	
1901, Oct. 29	*¶LEES, FRANK ARTHUR	59, Harpur Street, Bedford.
1902, Oct. 28	*LEES, RANDLE BURSLAM	99, Antrobus Street, Congleton, Cheshire.
1897, Feb. 17	*LEESE, VERNON FRANCIS	Brooklands Estate Office, Eastlands, Weybridge, Surrey.
1901, Feb. 21	*LEIGH, VINCENT STANLEY	316A, Mare Street, Hackney, N.E.
1899, Oct. 31	*LEMMOIN-CANNON, HENRY	3, Holland Road, Brixton, S.W.
1902, Feb. 20	*¶LESLIE, HARRY GEORGE	35, Charlwood Road, Putney, S.W.
1891, Jan. 17	*LEWIS, ARTHUR LLEWELYN ...	45, St. John's Park, Blackheath, S.E.
1898, Oct. 29	*¶LEWIS, JOHN	28, Worley Road, St. Albans, Herts.
1899, Oct. 30	*¶LICKIS, LEONARD...	123, Broomwood Road, Clapham Common, S.W.

ip. No.	Date of Election.	PROFESSIONAL ASSOCIATES.	Address.
591	1894, Oct. 30	*LIGHTFOOT, FRANCIS PRIDEAUX ...	Hafod Estate Office, Devil's Bridg R.S.O., Cardiganshire.
143	1884, Apr. 21	LIGHTFOOT, JOHN GEORGE	9, Whitehall Place, S.W.
207	1903, Oct. 28	*LINDSELL, PHILIP JANSON	Bearton, Hitchin, Hertfordshire.
710	1900, Oct. 30	*¶LISNEY, HARRY	6, Ely Place, Dublin.
531	1892, Nov. 28	*LITTLE, HENRY	82, Queen Street, Cheapside, E.C.
711	1900, Oct. 30	*LIVING, CHARLES, JUN.	55, Broadway, Stratford, E.
208	1903, Oct. 28	*LIVING, ROBERT	125, Broadway, Plaistow, Essex.
245	1897, Oct. 26	*LOMAX, ERNEST GEORGE	Parks Department, London County Cou cil, 11, Regent Street, W.
861	1901, Oct. 29	*LOVE, JAMES BARR	Broughton Farm, Otford, near Seve oaks, Kent.
976	1895, Oct 24	*LOVEGROVE, CHARLES GRESHAM	Potter's Bar, Middlesex.
862	1901, Oct. 29	*¶LOVELESS, ARTHUR WILLIAM HENRY	St. Margarets, Twickenham, Middlese
355	1887, Jan. 10	*LOWE, CHARLES ROBERT	30, Somerset Street, Portman Squar W.
1209	1903, Oct. 28	*LUCAS, JOHN CLAY	Castle Precincts, Lewes, Sussex.
489	1877, May 14	LUCAS, JOSEPH	21, Defoe Road, Tooting Graveney, S.
3022	1896, Jan. 21	*LUCK, GEORGE EDWARD	Estate Office, Crouch End Station, N.
3934	1902, Feb. 21	*¶LUFFINGHAM, WILLIAM JOHN ...	Estates and Valuation Departme London County Council, 9, Spri Gardens, S.W.
3566	1899, Oct. 30	*LUKE, JOHN, JUN.	66, Melton Road, Belgrave, Leicester.
3568	1899, Oct. 30	*LUMLEY, EDWARD ADRIAN ...	22, St. James's Street, S.W.
3400	1898, Oct. 29	*LUMLEY, FREDERICK ROBERT ...	Kenn, near Exeter, Devonshire.
4023	1902, Oct. 28	*LUNN, ALGERNON PERCY	Wentbridge, Pontefract, Yorkshire.
4024	1902, Oct. 28	*¶LUSH, WILLIAM VAWDREY ...	Llanover Road, Wembley, R.S. Middlesex.
1204	1884, May 26	LYNCH, JAMES HENRY	37, Norfolk Street, Strand, W.C.
4025	1902, Oct. 28	*¶LYON, MICHAEL LEWIS	315, Fulham Road, S.W.
2692	1894, Oct. 30	*LYONS, EDWARD COLVILL	Estate Office, Briton Ferry, South Wal
1144	1884, Apr. 21	MCCALLUM, PETER SERVICE ...	Midland Railway, Derby.
4307	1904, Feb. 18	*MCCOMAS, HERBERT WILLIAM...	6, Leinster Street, Dublin.
3863	1901, Oct. 29	*MCGAW, ANDREW KIDD	Van Diemen's Land Company, Bur Tasmania.
4026	1902, Oct. 28	*MCLEAN, DONALD, JUN.	Sutherland Estate Office, Gols Sutherlandshire.

Date of Election.	PROFESSIONAL ASSOCIATES.	Address.
1893, Oct. 4	*MACER, ALFRED THOMAS	39, Cheapside, E.C.
1898, Feb. 18	*MACKENZIE, HECTOR JOHN MAXWELL	Granville Estate Office, Bude Nor Cornwall.
1900, Oct. 30	*MACKINTOSH, WILLIAM SMITH ...	Baibymawr, Penybont, Radnorshire.
1903, Oct. 28	*MADGE, WILFRID	97, Gresham Street, E.C.
1900, Feb. 23	*¶MAGER, SYDNEY...	Church Farm, Hughenden, Buckinghai shire.
1900, Oct. 30	*¶MAGGS, LEONARD	Ellerslie, Arlington Park Gardei Gunnersbury, W.
1896, Oct. 28	*MALLINSON, CHARLES HERBERT	Market Place, Huddersfield, Yorkshir
1894, Oct. 30	*MANN, FREDERICK CHARLES THOMAS	Woking, Surrey.
1897, Oct. 26	*MARCHANT, ROBERT CHARLES	Merton Villa, 18, Elliston Road, Redlan Bristol.
1898, Oct. 29	*MARCUS, WILLIAM MORTIMER ...	20, Strathblaine Rd. New Wandswort S.W.
1903, Oct. 28	*MARGESSON, ANTHONY ROBERT...	Findon Place, Findon, Sussex.
1902, Oct. 28	*¶MARKS, THOMAS EDWARD ...	Estate Offices, Keighley, Yorkshire, a City Square, Leeds.
1901, Oct. 29	*MARRIAN, HAROLD GREENWOOD, A.M.I.C.E.	City Surveyor's Office, Town Ha Manchester.
1902, Oct. 28	*MARSHALL, GEORGE ERNEST ...	The Hollies, Handsworth, Sheffiel Yorkshire.
1896, Oct. 28	*¶MARTIN, ALEXANDER WILLIAM	Godfrey House, Godfrey Hill, Woolwic
1900 Oct. 30	*¶MARTIN, JOHN PATTINSON ...	Cranleigh, Wyndham Road, Salisbur Wilts.
1889, Dec. 9	*MASON, CHARLES WILLIAM HAYLEY	47, Wellington Road, N.W.
1902, Oct. 28	*¶MASON, HERBERT WALTER ...	107, White Hart Lane, Barnes, S.W.
1901, Oct. 29	*MASTERS, WILLIAM HENRY ...	Glencairn, Arthur Road, Southampto Hampshire.
1892 Nov. 28	*‡MAUGHAN, JOHN	Estate Office, Jervaulx Abbey, Middl ham, R.S.O. Yorks.
1902, Oct. 28	*¶‡MAW, PERCIVAL TRENTHAM ...	Holmesdale, Nutfield, Surrey.
1902, Oct. 28	*MAY, PHILIP JOHN	Chantry House, Saxmundham, Suffolk.
1894, Oct. 30	MAY, WILLIAM CHARLES	13, Castle Street, Dover, Kent.
1903, Oct. 28	*MAYHEW, ROBERT HENRY JEWERS	Edmondsbury, Genoa Road, Anerley, S.I
1902, Oct. 28	*MEACHER, EDMOND	c o W. Stallard, St. John's Hous St. John's, Worcester.
1898, Oct. 29	*MEACHER, EDWARD ERNEST ...	Radnor Chambers, Cheriton Plac Folkestone, Kent.
1898, Oct. 29	*¶MEACHER, SYDNEY GEORGE ...	Marlee, near Blairgowrie, Perthshire.
1893, Oct. 4	*MELLOR, JAMES FREDERICK ...	110, St. James's Street, Brighton, Susse
1895, Oct. 24	*MENMUIR, ROBERT WILLIAM ...	Town Hall, Woodstock, Cape Colony, S.

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p. o.	Date of Election.	PROFESSIONAL ASSOCIATES.	Address.
35	1892, Nov. 28	*MENZIES, ROBERT...	Merton Estate Office, Thetford, Norfo
72	1 899, Oct. 30	*MEREDITH, PERCY WILLIAM ...	50, Cannon Street, E.C.
73	1899, Oct. 30	MERRETT, JAMES	9, Whitehall Place, S.W.
83	1902, Oct. 28	*MERRITT, WILLIAM FRANCIS ...	"Windermere," Blackheath Park, S.I
36	1892, Nov. 28	*MEW, ROBERT HEATH...	The Limes, Redhill, Surrey.
11	1896, Oct. 28	*MEYER, HORACE LEYCESTER, M.A. (*Cantab*)	Estate Office, Cadland, Southampto Hampshire.
68	1901, Oct. 29	*MICHELL, JOHN	Royal Survey Department, Bangk Siam.
04	1898, Oct. 29	*MILBOURNE, JOHN SEYMOUR ...	Fairford, Gloucestershire.
97	1894, Oct. 30	*MILLER, FREDERICK WILLIAM ...	"Newholme," Thornlaw Road, W Norwood, S.E.
37	1892, Nov. 28	*MILLER, GEORGE FREDERICK ...	Town Hall, Hastings, Sussex.
16	1901, Oct. 29	*¶MILLS, DANIEL	c/o W. Day and Sons, 23, High Stre Maidstone, Kent.
13	1903, Oct. 28	*MILNE, WILLIAM EDWARD STREATFEILD	16, Great George Street, S.W.
52	1882, Feb. 13	MILNES, ROBERT	City Surveyor's Office, Guildhall, E.C.
14	1903, Oct. 28	*MINORS, ERNEST	City Engineer's Office, Guildha Worcester.
15	1903, Oct. 28	*MITCHELL, HAROLD HASTINGS ...	31, Bishop's Road, Fulham, S.W.
98	1894, Oct. 30	*MITCHELL, LEWIS, A.M.I.C.E. ...	Peel Chambers, Bury, Lancashire.
70	1901, Oct. 29	*MITCHELL, HERBERT ARTHUR ...	105, Western Road, Brighton, Sussex
74	1899, Oct. 30	*MOAT, ERNEST WILLIAM	14, Buckleigh Road, Streatham Comm S.W.
16	1903, Oct. 28	*MOCKETT, WILLIAM SHERWOOD	Beltyng House, Westbrook, Marga Kent.
19	1896, June 2	*MOERAN, ARCHIBALD EDWARD...	Palmerston House, Portumna, Co. Galw
94	1899, Feb. 16	*¶MOLYNEUX, FRANK EUSTACE...	9, Whitehall Place, S.W.
73	1891, Jan. 17	*MOLYNEUX, HERBERT ERNEST ...	80, Cannon Street, E.C.
31	1902, Oct. 28	*¶MOODY, HERBERT JOHN	35, Brockman Road, Folkestone, Ken
71	1901, Oct. 29	*MOORE, ARTHUR WILLIAM ...	29, Fleet Street, E.C.
17	1903, Oct. 28	*¶MOORE, ERNEST LLEWELLYN ...	The Elms, Muswell Avenue, Mus Hill, N.
50	1896, June 2	*MOORE, HUGH ARMYTAGE	Rowallane, Saintfield, Co. Down.
18	1903, Oct. 28	*MOORE, RICHARD CHARLES ...	Blomfield House, London Wall, E.C.
17	1900, Oct. 30	*MORLE, DENZIL ADAIR BARTLETT	7, Great Marlborough Street, W.
05	1898, Oct. 29	*¶MORRIS, ARTHUR	The Firs, Whitley, Reading, Berks.
71	1900, Oct. 30	*¶MORRIS-DAVIES, JAMES GEORGE	36, St. Mary's Road, Reigate, Surre
39	1892, Nov. 28	*MORRISH, HUGH KENNETH... ...	7, Commercial Arcade, Guernsey.
32	1894, Feb. 23	*MORRISON, DANIEL	41, John Dalton Street, Manchester.
99	1893, Oct. 4	*MORRISON, GERARD DONALD ...	Estate Office, Childwick Bury, St. Al Herts.
72	1901, Oct. 29	*¶MORRISON, IVOR CHARLES ...	"Alma," St. Albans, Herts.

Date of Election.	PROFESSIONAL ASSOCIATES.	Address.
1903, Feb. 20	*MORSE, DUDLEY WALTER	Caistor, Norwich.
1902, Oct. 28	*MOSS, CHARLES PERCY	58, Ashley Road, Crouch Hill, N.
1889, Dec. 9	*MUIR, JAMES	Rubers Law, Byfleet, Surrey.
1898, Oct. 29	*MULLETT, HENRY THOMAS	8, Flanders Road, Bedford Park, W.
1899, Oct. 30	*¶MUMBY, ELVIN FOWLER	Fidworth House, near Andover, Hampshire.
1903, Oct. 28	*MUNDELL, JOSEPH EDWARD ...	157, Wool Exchange, Coleman Street, E.C.
1901, Oct. 29	*MURDOCK, CLIVE	Calverley Lodge, Tunbridge Wells, Kent.
1902, Oct. 28	*MURTOUGH, JOSEPH	"Avondale," St. George Square, Portsea, Hampshire.
1902, Oct. 28	*MYTTON, PHILIP ALDRED	Garth, Welshpool, Montgomeryshire.
1902, Oct. 28	*¶NEAME, FREDERICK IVO	The Offices, Macknade, Faversham, Kent.
1903, Oct. 28	*NETTEN, PERCY JOHN	16, Manor Street, Stonehouse, Devon.
1894, Oct. 30	*NEUBRONNER, HARRY ALFRED, A.R.I.B.A.	Penang, Straits Settlement.
1903, Oct. 28	*NEWBORN, CHARLES REGINALD	The Outer Temple, Strand, W.C.
1902, Oct. 28	*NEWINGTON, CALEB RICKMAN K.	School Hill, Lewes, Sussex.
1903, Oct. 28	*NEWLING, ARTHUR NOEL	Law Association Buildings, 14, Cook Street, Liverpool.
1902, Oct. 28	*NEWMAN, BERNARD	Holmwood, Uxbridge Road, Ealing Dean, W.
1899, Oct. 30	*NEWMAN, HENRY ARTHUR A.M.I.C.E.	Council Offices, Church End, Finchley, N.
1900, Oct. 30	*NEWMAN, WALTER PHILIP	34, Solent Road, West Hampstead, N.W.
1903, Oct. 28	*¶NEWNHAM, FRANK GEORGE ...	9, Spring Gardens, S.W.
1903, Oct. 28	*NEWTON, JAMES WILLIAM	Works Department, Admiralty, S.W.
1897, Feb. 17	*NICHOLSON, EBENEZER	105, Cheapside, E.C.
1898, Oct. 29	*NICHOLSON, GUY MURRAY... ...	9, Regent Street, Waterloo Place, S.W.
1896, Oct. 28	*NOBLE, EDMUND JAMES	1, Osborn Road, Sheffield, Yorkshire.
1889, Jan. 14	*¶NOCKOLDS, MARTIN CHARLES HUBERT	Saffron Walden, Essex.
1884, Mar. 10	NORRIS, EDWARD JAMES	The Mount, Preston Park Avenue, Brighton.
1904, Feb. 18	*¶NOTLEY, LESLIE RICHARD ...	80, Cornhill, E.C.
1898, Oct. 29	*¶NUTTER, JOHN	Thorneycroft, Lancaster Road, Morecambe.
1903, Oct. 28	*NYE, HAYDN PERCIVAL	116, Cromwell Road, S.W.

Mp. No.	Date of Election.	PROFESSIONAL ASSOCIATES.	Address.
874	1901, Oct. 29	*OATEN, ALFRED EDWARD	9, Clare Street, Bristol.
128	1896, Oct. 28	*¶OLDNALL, ROGER WILLIAM, B.A. (*Cantab.*)	Bevere Firs, Worcester.
042	1902, Oct. 28	*ORCHARD, ALFRED DEAN	3, Moorfield Place, Hereford.
410	1898, Oct. 29	*ORCHARD, SIDNEY SAMUEL	Royal Engineer Office, Great Br Street, Birmingham.
935	1902, Feb. 21	*O'REILLY, HENRY G.	6, Leinster Street, Dublin.
226	1903, Oct. 28	*ORTON, WILLIAM GOODACRE ...	9, Gopsall Street, Leicester.
411	1898, Oct. 29	*¶ORWIN, CHARLES STEWART ...	Wye, Kent.
114	1896, Oct. 28	*OSBOURN, EDWARD	c/o W. E. Robarts, 298, Smith Stre Durban, Natal, B.S.A.
227	1903, Oct. 28	*¶‡OSMOND-SMITH, FRANCIS HENRY GEORGE	High Street, East Grinstead, Sussex.
541	1892, Nov. 28	*OUVRY, PETER ARNOLD	The Salterns, Lymington, Hants.
542	1892, Nov. 28	*OVENDEN, CHARLES	Norlington, Kings Hall Road, Beck ham, Kent.
875	1901, Oct. 29	*OVERTON, WILLIAM HENRY ...	22, Ship Street, Brighton, Sussex.
043	1902, Oct. 28	*OWEN, HARRY BERTRAM	Florence Street, Newcastle, Staffo shire.
250	1897, Oct. 26	*PAICE, WILLIAM, JUN.	The Limes, Egham, Surrey.
703	1894, Oct. 30	*¶PAIN, WILLIAM HENRY	Carnarvon Estate Office, Bingh Nottinghamshire.
771	1901, Feb. 21	*PALLISER, WILLIAM ARTHUR ...	Box 115, Post Office, East London, C Colony, South Africa.
309	1904, Feb. 18	*PALMER ARTHUR	76, Nunhead Grove, Nunhead, S.E.
719	1900, Oct. 30	*¶PARKER, FREDERIC WILLIAM...	Parks Department, London Cou Council, 11, Regent Street, S.W.
720	1900, Oct. 30	*PARKER, HOWARD	Maple Creek, Assiniboia, Canada.
044	1902, Oct. 28	*¶PARKHOUSE, SAMUEL	9, Upper Highlever Road, St. Quint Park, W.
229	1903, Oct. 28	*PARKINSON, EDWARD	16, Leicester Terrace, Manor Dr Halifax.
045	1902, Oct. 28	*PARKINSON, HERBERT	35, Winchelsea Road, Tottenham, N.
979	1895, Oct. 24	*PARKS, WALTER	17, Holmesdale Gardens, Hasti Sussex.
251	1897, Oct. 26	*PARNACOTT, ARTHUR CHARLES ...	32, Pleydell Avenue, Upper Norwood,
876	1901, Oct. 29	*¶PARNWELL, SYDNEY ARTHUR...	Surveyor's Department, Great Nortl Railway, King's Cross, N.
230	1903, Oct. 28	*PARROTT, HUGH FRANCIS VIVIAN	The Thorn, Hayes, Middlesex.
046	1902, Oct. 28	*¶PARRY, ALBERT EDWARD ...	36, Endlesham Road, Balham, S.W.

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1899, Oct. 30	*PARRY, HERBERT MOSTYN	141, Inverness Terrace, Bayswater, W.
1902, Oct. 28	*PARSONS, MAURICE HARRY DONNE	"Rosemont," Heavitree Road, Exeter, Devonshire.
1903, Oct. 28	*PARSONS, MEREFIELD DONNE ...	Burma.
1901, Oct. 29	*¶PATON, DAVID LLEWELLYN ...	32, Chalcot Crescent, Regent's Park, N.W.
1902, Oct. 28	*PATTISSON, WILLIAM HENRY MUNNINGS	Heywood, Cobham, Surrey.
1895, Oct. 24	*PAUL, JOHN WILLIAM	31, Bedford Row, W.C.
1902, Oct. 28	*PAVITT, HAROLD WILLIAM	178, Willesden Lane, N.W.
1875, May 10	PAYNE, WILLIAM PERCY	Holmesdale, The Park, Nottingham.
1896, Oct. 28	*PEARCE, CHARLES FREDERICK ...	65, Edgware Road, W.
1898, Oct. 29	*PEARCE, FRANCIS ARTHUR	78, Blenheim Gardens, Willesden Green N.W.
1884, Apr. 21	PEARCE, FREDERICK WILLIAM ...	34, Gloucester Road, Finsbury Park, N.
1903, Oct. 28	*PEARCE, STEPHEN HARVEY ...	Architect's Department, L.C.C., Spring Gardens, S.W.
1902, Oct. 28	*¶PEARSE, THOMAS WILLIAM ...	Modbury, South Devon.
1902, Oct. 28	*PEARSON, THOMAS GIBSON	Town Hall, Barrow-in-Furness, Lancashire.
1898, Oct. 29	*PEASE, CHARLES EDWARD	16, Clifford's Inn, Fleet Street, E.C.
1897, Oct. 26	*¶PEEBLES, PHILIP	Syon House, Brentford, Middlesex.
1894, Feb. 23	*PEGGE, JOHN THOMAS	City Surveyor's Office, Durham.
1903, Oct. 28	*PEILE, CHARLES FREDERICK ...	Estate Office, Seal, Sevenoaks.
1901, Oct. 29	*PENROSE, EDWARD ALEC	Estate Office, Rose Lane, Waterford, Ireland.
1903, Oct. 28	*PEPLER, GE RGE LIONEL	Apsley, Heathhurst Road, Sanderstead, Croydon.
1898, Feb. 18	*PEPPERCORN, HENRY MCARTHUR	Larkfield, Maidstone, Kent.
1896, Oct. 28	*PEPPERCORN, JOHN ARTHUR ...	Eaton Socon, St. Neots, Huntingdonshire
1901, Oct. 29	*PERCIVAL, WALTER GILBEY ...	Somerset Court, Brent Knoll, Somerset.
1902, Oct. 28	*PERKIN, DANIEL WARD	P. O. Box 873, Cape Town, South Africa.
1890, Nov. 22	*PERKINS, JOSEPH	Glencoe, Willows Road, Balsall Heath, Birmingham.
1900, Oct. 30	*¶PERKS, HUGH EARL	2, St. Paul's Square, Bedford.
1887, Apr. 18	*PERKS, SYDNEY, A.R.I.B.A	5, Crown Court, Cheapside, E.C.
1900, Oct. 30	*PERRINS, GEORGE LATHAM... ...	13, Cambridge Road, Lytham, Lancashire.
1899, Oct. 30	*¶PETCH, JOHN STONEHOUSE ...	Estate Office, Wensley, Leyburn, R.S.O., Yorkshire.
1904, Feb. 18	*¶PETERS, GEORGE FARMER JAMES	c/o Charles Osenton, Station Road Ashtead, Surrey.
1883, Dec. 17	PEWTRESS, HERBERT WILMSHURST	15, Cursitor Street, Chancery Lane, W.C
1884, Mar. 10	PHILLIPS, GEORGE CAWKWELL ...	Clarence St., Southend-on-Sea, Essex.
1894, Oct. 30	*PHILLIPS, FRANCIS JOHN	"Marmora," Hamlett Road, Southend-on-Sea, Essex.

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1448	1888, Jan. 23	*PHILLIPS, WILLIAM DEARLOVE ...	High Wycombe, Bucks.
4235	1903, Oct. 28	*¶PHILPOT, CLIFFORD NEEDHAM	Dunsmore, Warlingham, Surrey.
1342	1886, Dec. 6	*PHYSICK, WALTER FREDERICK ...	65, Edgware Road, W.
2982	1895, Oct. 24	*PIERCY, FREDERIC ONSLOW ...	The Elms, Lowthorpe, East Yorkshire
3582	1901, Oct. 29	*PILDITCH, WILLIAM THOMAS ...	2, Pall Mall East, S.W., and 32, Bern Gardens, Wimbledon, S.W.
4236	1903, Oct. 28	*PINCKNEY, HENRY CHRISTOPHER	Manor House, Great Durnford, Salisbu
3254	1897, Oct. 26	*PINFOLD, FRANCIS ARTHUR ...	Estate Office, L. B. &. S. C. Ry., Lon Bridge Terminus, S.E.
3883	1901, Oct. 29	*¶PINSENT, FRANCIS WINGFIELD HOMFRAY	4, Frederick's Place, Old Jewry, E.C.
3723	1900, Oct. 30	*¶PINSON, GILBERT	Cobden Buildings, Corporation Stre Birmingham.
3724	1900, Oct. 30	*PITT, PHILIP SEPTIMUS	53, Bateman Street, Cambridge.
4053	1902, Oct. 28	*PITTS, FRANK ERNEST	162, Gleneagle Road, Streatham, S.W
3725	1900, Oct. 30	*PLANT, WILLIAM	Borough Engineer's Office, Leicester.
3726	1900, Oct. 30	*POLE, ALEXANDER CHARLES REGINALD	Care of Messrs. W. and L. Clare, 37, P Square, Leeds, Yorkshire.
4054	1902, Oct. 28	*POLLOCK-HODSOLL, HAROLD EDWARD	4, Essex Court, Temple, E.C.
4237	1903, Oct. 28	*POOLE, HERBERT HENRY	67, Addison Road, W.
4238	1903, Oct. 28	*PORTER, DOUGLAS DAVID	Mayfield, Hutton, Essex.
4239	1903, Oct. 28	*¶PORTER, SYDNEY LAWRANCE...	141, Fenchurch Street, E.C.
3560	1899, Oct. 30	*POTTER, SHIRLEY HERBERT ...	6, King Street, Cheapside, E.C.
3884	1901, Oct. 29	*¶POTTIER, GEORGE LOUIS	2, St. George's Villas, Whipps Cr Walthamstow, E.
3628	1900, Feb. 23	*¶PRATT, FRANK PERCY	97, Gresham Street, E.C.
3314	1898, Feb. 18	*¶PRICE, CAPEL HEREWARD ...	89, St. Paul's Road, Camden Squ N.W.
3885	1901, Oct. 29	*PRIEST, ALBERT EDWARD	Temple Courts, 55, Temple S Birmingham.
3415	1898, Oct. 29	*PRIESTMAN, ALFRED TUKE... ...	Exchange Buildings, Bradford, Yorksh
4055	1902, Oct. 28	*‡PRITCHARD, HENRY	Llandaff Road, Cardiff, Glamorgansh
1680	1889, Dec. 9	*PUCKRIDGE, PERCIVAL MARTIN...	Milton Pewsey, Wilts.
4240	1903, Oct. 28	*PUDDICOMBE, WILLIAM PHIPPEN	99, Bry-ny-mor Road, Swansea, Glam ganshire.
2985	1895, Oct. 24	*PYE, GEORGE HENRY	Rocklyn, Barkers Lane, Ashton Mersey, Cheshire.
1289	1885, Dec. 7	*RAND, JOHN	Aberdour, Broxbourne, Hertfordshir
4056	1902, Oct. 28	*RANDELL, FRANCIS WILLIAM ...	34, Brunswick Street, Swansea, Gl organshire.
3581	1899, Oct. 30	*¶RANSOM, THOMAS REGINALD ...	59, Ritherdon Road, Upper Toot S.W.

‡ Special Forestry Certificate.

Date of Election.	PROFESSIONAL ASSOCIATES.	Address.
1901, Oct. 29	*RAWLENCE, JAMES	The Square, Wilton, Wiltshire.
1898, Oct. 29	*RAWSTRON, CHARLES OLIVER ...	Lichfield Rural District Council, Birmingham Road, Lichfield, Staffordshire.
1903, Oct. 28	*RAYMOND, JAMES OWEN	Langdon Street, Tring, Herts.
1903, Oct. 28	*¶READ, FRANCIS CHARLES JENNINGS	City Surveyor's Office, Guildhall, E.C.
1894, Oct. 30	*READ, WALTER HERBERT	8, The Avenue, Castle Hill, Ealing, W.
1898, Oct. 29	*REDFERN, CHARLES FREDERICK	Whitehall Chambers, 23, Colmore Row, Birmingham.
1902, Oct. 28	*REED, CHARLES CECIL	Beeford Grange, Beeford, Driffield, Yorkshire.
1903, Oct. 28	*REED, EDWARD B.	Agricultural College, Uckfield, Sussex.
1898, Oct. 29	*¶REED, RICHARD GEORGE GORDON	Glen Devon, Addiscombe Road, Croydon.
1901, Oct. 29	*REES, WILLIAM HAROLD	Annandale, 154, Croydon Road, Anerley, S.E.
1899, Oct. 30	*¶REEVE, DOUGLAS WILLIAM ...	168, Kent Street, London, Ontaria, Canada.
1902, Oct. 28	*RHODES, BEN ALBERT	Hallas, Kirkburton, near Huddersfield, Yorkshire.
1899, Oct. 30	*RICHARDSON, ERNEST EDWARD...	23, Trinder Road, Crouch Hill, N.
1902, Oct. 28	*RICHARDSON, HAROLD THOMAS...	"Nestonlee," Horsham, Sussex.
1903, Feb. 20	*RICHARDSON, HENRY	3, North Street, Westminster, S.W.
1897, Feb. 17	*RICKARDS, ROBERT HILLIER TRAHERNE ANSON	Charles Street Chambers, Cardiff, Glamorganshire.
1899, Oct. 30	*¶RIDDETT, MAURICE CHARLES...	Market Street, Charlbury, Oxfordshire.
1901, Feb. 18	RINGLAND, WILLIAM EWART ...	8, Wellington Road, St. John's Wood, N.W.
1902, Oct. 28	*¶RIPPENGAL, ARTHUR HENRY ...	8, Dunheved Road North, Thornton Heath, Surrey.
1896, Oct. 28	*RIVERS, CHARLES EDWIN	Municipal Offices, Harrogate, Yorkshire.
1898, Oct. 29	*¶ROBBINS, WALTER FRANCIS ...	"Melrose," Hornsey Lane, N.
1900, Oct. 30	*¶ROBERTS, JOHN	Perfeddnant, Towyn, Merionethshire.
1901, Oct. 29	*ROBERTS, JOHN	Churton Villa, Tarvin Road, Chester.
1898, Oct. 29	*ROBERTSON, HENRY CHARLES ...	30, Huron Road, Upper Tooting, S.W.
1900, Oct. 30	*ROBINSON, JOSSLYN ALLEYNE ...	The Chestnuts, Bolton-le-Sands, Carnforth, Lancashire.
1882, Apr. 24	ROBINSON, MARTIN CATLIN ...	Wenden, Saffron Walden, Essex.
1897, Oct. 26	*ROBINSON, RALPH ETESON	29, Beacon Hill, Camden Road, N.
1903, Oct. 28	*ROGERS, FREDERIC JAMES ...	87, Claverton Street, S.W.
1895, Oct. 24	*ROGERS, THOMAS GEORGE	Estate Offices, Railway Approach, Archway Road, Highgate, N.
1884, Mar. 10	ROSE, EDWARD JOSEPH	58, Corn Market Street, Oxford.
1903, Oct. 28	*ROSEVEAR, JOHN ASHBURNHAM	109, New King's Road, Fulham, S.W.
1884, Jan. 28	ROSS, DAVID JAMES, M.I.C.E. ...	Engineer's Office, Guildhall, E.C.

Dip. No.	Date of Election.	PROFESSIONAL ASSOCIATES.	Address.
4247	1903, Oct. 28	*ROWLANDSON, GEORGE ARMSTRONG	Unthank, Hutton-in-the-Forest, Pen
3586	1899, Oct. 30	*¶ROWLANDSON, SAMUEL MESSITER, CAPTAIN	19, North Bailey, Durham.
1695	1890, Jan. 6	*ROWLEY, WILLIAM TAYLOR ...	Royston, Hertfordshire.
1901	1890, Nov. 22	*RUDDLE, FRANK J.	London County Council, Sp Gardens, S.W.
3730	1900, Oct. 30	*RUDDLE, FREDERICK CHARLES ...	Union Offices, Cardwell Place, Bl burn, Lancashire.
4061	1902, Oct. 28	*¶RUDDLE, GEORGE WILLIAM ...	118, Greenwich Road, S.E.
4248	1903, Oct. 28	*RUSH, ARTHUR LESLIE	"Willowsmere," Vale Avenue, T bridge Wells, Kent.
4249	1903, Oct. 28	*RUSSELL, HUMPHREY GLADSTONE	Boconnoc, Clifton Crescent, Sut Surrey.
3772	1901, Feb. 21	*¶RUTLEY, ARTHUR DENNETT ...	11, Dowgate Hill, E.C.
3587	1899, Oct. 30	*RUTTER, ARTHUR LIONEL, M.A. (*Cantab.*)...	63, Sidney Street, Cambridge.
1024	1883, Dec. 17	SABIN, JOSEPH HENRY (*Professional Associate of Council*)	10, Little College Street, Westmin Abbey, S.W.
4250	1903, Oct. 28	*SACKETT, SIDNEY RUPERT... ...	10, Stratford Square, Shakespeare St Nottingham.
4062	1902, Oct. 28	*¶SAINSBURY, WILLIAM CHARLES	20, Narcissus Road, West Hampst N.W.
3257	1897, Oct. 26	*ST. AUBYN, BELVILLE MOLESWORTH, B.A. (*Oxon.*)	Stopham Estate Office, Toat, Pulboro Sussex.
2734	1895, Mar. 6	*SAISE, ALFRED JOHN	Council Offices, Kingswood, near Bri
2605	1893, Oct. 4	*SALE, ARTHUR REED	c/o T. W. R. Sale, Solicitor, Carl Cumberland.
4251	1903, Oct. 28	*¶SALMON, JOSEPH HAROLD ...	9, Spring Gardens, S.W.
3258	1897, Oct. 26	*SALT, HAROLD CROSSLEY, M.A. (*Cantab.*)	Barrington Estate Office, Bur Oxford.
3889	1901, Oct. 29	*SALT, LEONARD EUSTACE	Quarry Place, Shrewsbury, Shropsl
1124	1887, Dec. 19	*SALT, REGINALD NOWELL	Quarry Place, Shrewsbury, Shropsl
4252	1903, Oct. 28	*SALWEY, ARTHUR	The Cedars, Broxbourne, Herts.
3588	1899, Oct. 30	*¶SANDAY, WILLIAM HENRY ...	15, Great George Street, S.W.
3589	1899, Oct. 30	*¶SANDELL, STANLEY LUNAU ...	Belcaire, Widmore Road, Bromley, I
4253	1903, Oct. 28	*SANDERS, FRANCIS LEONARD ...	Chesham Estate Office, Chesham, B
3937	1902, Feb. 21	*¶†SANDS, HUBERT COVELL ...	101, Minard Road, Catford, S.E.
4116	1903, Feb. 20	*SANSOM, WILLIE STANLEY VENN	71, East Hill, Colchester, Essex.

† Special Sanitary Science Certificate.

Date of Election.	PROFESSIONAL ASSOCIATES.	Address.
1883, May 25	*SATCHELL, CHARLES	Beech House, Richmond Park Road, Bournemouth, Hants.
1890, Feb. 10	*SATCHELL, HERBERT A., A.R.I.B.A.	3, Staple Inn, W.C.
1900, Oct. 30	*¶SAUNDERS, EDGAR WALTER ...	108, Stapleton Hall Road, Stroud Green, N.
1903, Oct. 28	*SAVAGE, TOM ALBERT	55, Mills Hill Road, Middleton Junction, Manchester.
1900, Oct. 30	*SCHOFIELD, PETER	Rosebank, Kirkham, near Preston, Lancashire.
1898, Oct 29	*SCOBLE, HERBERT THOMAS ...	28, Victoria Street, S.W.
1894, Oct. 30	*SCORER, ALFRED GEORGE	Flaxmoor, Caston, Attleborough, Norfolk.
1903, Oct. 28	*¶SCOTT, JOHN	159, High Street, Putney, S.W.
1896, Jan. 21	*¶SCRIVENER, JOHN CHARLES ...	Mistleigh, Caterham Valley, Surrey.
1903, Oct. 28	*SEALE, PERCY JAMES	Granville House, Southborough, Kent.
1898, Oct. 29	*SEARLE, SYDNEY	Sudbury Priory, Harrow-on-the-Hill, Middlesex.
1894, Feb. 23	*SEDDON, GEORGE FARQUHARSON	29, Bedford Row, W.C.
1891, Nov. 4	*SEDGWICK, RUPERT WILLIAM ...	38, High Street, Watford, Herts.
1890, Feb. 10	*SELBY, FRANK	44, Chancery Lane, W.C.
1884, Dec. 8	*SELBY, JOHN BASELEY	Atherton Hall, Leigh, near Manchester.
1900, Oct. 30	*SELLER, FRANK RUSSELL	7, Cornhill, E.C.
1880, Feb. 16	SEXBY, JOHN JAMES	London County Council, Spring Gardens, S.W.
1887, Dec. 19	*SHAW, ARTHUR	Ramsden Estate Offices, Railway Street, Huddersfield, Yorkshire.
1897, Oct. 26	*SHEARER, JAMES HUGHAN	Museum Chambers, 22, Queen Street, Exeter, Devon.
1898, Oct. 29	*¶SHELDON, HAROLD	Kinderton Street, Middlewich, Cheshire.
1884, Apr. 21	SHERRY, NATHANIEL	45, Fenchurch Street, E.C.
1900, Oct. 30	*SHETTLE, EDWARD GURNEY ...	Kelling Heath Estate Office, near Holt, Norfolk.
1901, Oct. 29	*SHIPWRIGHT, WILLIAM GEORGE	3, Warwick House Street, Charing Cross, S.W.
1902, Oct. 28	*SHONE, LEIGHTON EDWARD... ...	Market Chambers, Market Place, Peterborough.
1897, Oct. 26	*SHORNEY, ARTHUR SHEPHERD ...	59, Foregate Street, Worcester.
1903, Oct. 28	*SHOTTON, JOHN SIDWELL	c/o John White, MacIver & Co., Estate Offices, Warrington, Lancashire.
1897, Oct. 26	*SIMPSON, LESLIE SHEPHERD ...	c/o Messrs. Langridge & Freeman, The Broadway, Tunbridge Wells, Kent.
1894, Oct. 30	*SKEAT, ARTHUR PERCIVAL ...	Londonderry Hall, Dominica, British West Indies.
1884, Jan. 28	SKEWIS, EDWIN	100, Mount Street, Grosvenor Square, W., and 29, Bark Place, Hyde Park, W.
1882, Dec. 18	SKINGLE, ALFRED	29, Fleet Street, E.C.
1897, Feb. 17	*¶SKINGLE, ALFRED CHARLES ...	52, Josephine Avenue, Brixton, S.W.

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4258	1903, Oct. 28	*SLADDIN, FREDERICK ROBERT EDWIN	7, John Street, Adelphi, W.C.
1050	1884, Jan. 14	SLADE, ISAAC	90 & 91, Queen Street, E.C.
4259	1903, Oct. 28	*SLADE, JAMES HARCOURT	Upminster, Romford, Essex.
4066	1902, Oct 28	*SLATER, ARTHUR JAMES	Borough Engineers' Office, Town I Ipswich, Suffolk.
4067	1902, Oct. 28	*¶SMALLEY, WILLIAM	Falcon Court, 32, Fleet Street, E.C.
4068	1902, Oct. 28	*¶SMITH, ARTHUR KITSON	c/o Robins & Hine, 5, Waterloo P Pall Mall, S.W.
4069	1902, Oct. 28	*SMITH, ARTHUR TELFORD	15, Cheapside, Bradford, Yorkshire.
4070	1902, Oct. 28	*¶SMITH, CHARLES PHILIP	The Town Hall, Greenwich, S.E.
4260	1903, Oct. 28	*SMITH, CUTHBERT	Thorney, near Peterborough, and Crossways, Totteridge, Herts.
4071	1902, Oct. 28	*SMITH, CYRIL HERBERT	Buckhill, Calne, Wiltshire.
3591	1899, Oct. 30	*SMITH, DOUGLAS	Stanage Park Estate, Brampton B Herefordshire.
4261	1903, Oct. 28	*SMITH, DOUGLAS HENRY	7, Marine Avenue, Southend-on- Essex.
4262	1903, Oct. 28	*SMITH, FRANK HALL	Wiveliscombe, Somersetshire.
3428	1898, Oct. 29	*¶SMITH, GEORGE HENRY	1, Worcester Road, Wimbledon, S.W
4263	1903, Oct. 28	*SMITH, HARRY VINCENT	5, Milman Road, Reading, Berkshir
3892	1901, Oct. 29	*¶SMITH, HUBERT GEORGE	Boughton-Monchelsea, Maidstone, K
4264	1903, Oct. 28	*¶SMITH, HUGH	22, Park Avenue, Chelmsford, Essex
2052	1891, Mar. 14	*SMITH, JAMES	Borough Surveyor's Office, Town Buckingham.
3893	1901, Oct. 29	*SMITH, JOHN WILLIAM...	60, Brazil Street, Hull, Yorkshire.
3894	1901, Oct. 29	*¶SMITH, QUENTIN CULLEN... ...	78, Great Queen Street, Lincoln's Fields, W.C.
4072	1902, Oct. 28	*¶SMITH, STANLEY ADDISON ...	"Sunnyside," Monkseaton, Northum land.
4265	1903, Oct. 28	*SMITH, SIDNEY WILLIAM	York Cottage, Church Street, Suffolk.
2990	1895, Oct. 24	*SMITHELLS, EDWIN	Merlewood, Newport Road, Staffor
1905	1890, Nov. 22	*SNAILUM, WALTER WADMAN ...	Church Street & Wingfield Road, T bridge, Wilts.
3266	1897, Oct. 26	*SNOW, HENRY CYPRIAN	Friar Lane, Leicester.
3895	1901, Oct. 29	*¶SOPER, HAROLD...	Edenbridge, Kent.
3267	1897, Oct. 26	*SOUTHCOMBE, JOHN CHARLES ...	Bridge Buildings, Barnstaple, Devo
2499	1892, Feb. 26	*SOUTTER, ERNEST...	Elmside, Passfield Common, Lip Hampshire.
4073	1902, Oct. 28	*¶SPALDING, FRANK EWART ...	3, Lyndhurst Road, Hampstead, N.W
4266	1903, Oct. 28	*SPARKE, NORMAN LUSH	Estate Office, Albury, Surrey.
3132	1896, Oct. 28	*SPARROW, WILLIAM HUGH ...	Beckminster, Wolverhampton, Sta shire.
4495	1899, Feb. 16	*SPEAKMAN, JOHN MCCLURE ...	c/o The Delta Light Railway Com Tanta, Egypt.

Date of Election.	PROFESSIONAL ASSOCIATES.	Address.
1890, Nov. 22	*SPELMAN, WILLIAM WILTON RIX	17, Bank Plain, Norwich, Norfolk.
1901, Oct. 29	*SPENCE, RICHMOND	Sea View, Westham, Pevensey, Sussex.
1903, Oct. 28	*SPENCER, FRANCIS AUGUSTUS ...	Architect's Department, London County Council, S.W.
1903, Oct. 28	*SPYER, GEORGE	70, Lyncroft Gardens, West Hampstead, N.W.
1897, Oct. 26	*STACEY, FREDERICK CHARLES WEBSTER	9, Carteret Street, Westminster, S.W.
1883, Jan. 15	STACEY, WILLIAM...	80, Cheapside, E.C.
1890, Jan. 6	*STAINTON, FRANCIS CHARLES ...	18, Westmount Road, Eltham, S.E.
1893, Oct. 4	*STALEY, ALBERT HENRY	Coton Road, Nuneaton, Warwickshire.
1898, Oct. 29	*STALLARD, HAROLD ORLANDO ...	Rayne Hatch Farm, Stisted, near Braintree, Essex.
1898, Oct. 29	*¶STANTON, FREDERICK WILLIAM SCHULTHEISS, A.M.I.C.E.	10, The Paddock, Chatham, Kent.
1900, Oct. 30	*¶STEAD, EDWARD JOHN	Assistant District Engineer, Public Works Department, Durban, Natal.
1901, Oct. 29	*STEDMAN, CHARLES FREDERICK...	"Kelsham," Cranleigh, Surrey.
1903, Oct. 28	*STEERE, EDWARD CECIL	Post Office, Bunbury, Western Australia.
1901, Oct. 29	*¶STEPHENS, JOHN KYLE	13, Donegall Square, N., Belfast, Ireland.
1882, Jan. 16	STEVENSON, FREDERICK J.... ..	Portland Office, Queen Anne Street, W.
1903, Oct. 28	*STEWARD, CLIFFORD THOMAS ...	45, Parliament Street, S.W.
1903, Oct. 28	*¶STEWART, HARRY S.	Clarewood, Arthur Road, Wimbledon, S.W.
1903, Oct. 28	*STEWART, NIGEL DESMOND... ...	Bryn Tirion, Vaynol Park, Port Dinorwic, N. Wales.
1900, Feb. 23	*¶STIMSON, EDWARD FREDERICK	"Clovelly," Marshall's Road, Sutton, Surrey.
1897, Oct. 26	*¶STIMSON, HERBERT PERCY ...	2, New Kent Road, S.E.
1900, Oct. 30	*STOCKINGS, ARTHUR PERRY ...	P.O. Box, 508, and 11, Main Street, Port Elizabeth, South Africa.
1897, Oct. 26	*¶STOKES, HUGH CHARLES	49, Upper Baker Street, N.W.
1900, Oct. 30	*¶STONE, CYRIL FRANK	Normanton Lodge, Stamford, Lincolnshire.
1901, Oct. 29	*¶STONE, FREDERIC	40, London Road, Newcastle, Staffordshire.
1897, Oct. 26	*¶STONEHAM, EDWARD RUSSELL	Orchard House, Erith, Kent.
1902, Oct. 28	*¶STOOKE, JOHN EDWIN HELLYAR	2, Palace Yard, Hereford.
1882, Dec. 4	STOWER, JOSEPH	43, Chancery Lane, W.C.
1896, Oct. 28	*STRAKER, HOWARD	16, Water Lane, Great Tower St., E.C.
1900, Oct. 30	*STRUDWICK, FRANK EDWARD ...	32, Park Road, Bromley, Kent.
1903, Oct. 28	*STRUDWICK, PHILIP	32, Park Road, Bromley, Kent.
1903, Oct. 28	*¶STRUTT, JOHN JAMES	Whitelands, Witham, Essex.
1896, Oct. 28	*STUBBING, RICHARD WEBB ...	37, Queen Victoria Street, E.C.

Dip. No.	Date of Election.	PROFESSIONAL ASSOCIATES.	Address.
1578	1889, Feb. 11	*STUCKÉ, WM. HENRY, A.R.I.B.A.	P.O. Box 2271, Johannesburg, and Box 91, Bloemfontein, B.S.A.
1235	1884, Dec. 8	*STURGE, THEODORE	33, Corn Street, Bristol, Gloucester
1296	1885, Jan. 11	*STURGESS, JOHN MOORE	Penshurst Park, near Tunbridge, K and 30, Craven Street, Strand, W.
1708	1890, Jan. 27	*STURLEY, ARTHUR DYSON	35, Norfolk Street, Strand, W.C.
1978	1891, Jan. 17	*SUMMERFIELD, JOSEPH CHARLES	16, Grove Mansions, Clapham Com S.W.
3900	1901, Oct. 9	*SURREY, CHRISTOPHER WILLIAM	Architect's Department, London Co Council, S.W.
1433	1898, Oct. 29	*SWAN, HAROLD	18, Wandle Road, Upper Tooting, S.
1273	1897, Oct. 26	*¶SWANWICK, BRUCE, M.A. (*Oxon.*)	Royal Agricultural College Farm, Ci cester.
4076	1902, Oct. 28	*SYMES, WILLIAM CHARLES... ...	7, Bideford Mansions, Rosebery Ave E.C.
4077	1902, Oct. 28	*¶SYMMONS, PERCY JAMES... ...	"The Hollies," Brooke Avenue, Har on-the-Hill, Middlesex.
3595	1899, Oct. 30	*TAIT, FRANK VINCENT	Rathtara, Stocks Lane, Bough Chester.
4275	1903, Oct. 28	*TAIT, WILLIAM IRONSIDE	Council Offices, Nuneaton, Warw shire.
3901	1901, Oct. 29	*¶TALLBOY, FREDERICK JAMES...	4, Kensington Gardens, Cranbrook P Ilford, Essex.
3902	1901, Oct. 29	*¶TANNER, RUDOLPH	29, Pelham Place, South Kensing S.W.
3903	1901, Oct. 29	*TANNER, WILLIAM HUGH	4, Brackley Road, Beckenham, Kent.
3135	1896, Oct. 28	*¶TATE, JOSEPH GEORGE	The Rutland Estate Office, Ilkes Derbyshire.
4078	1902, Oct. 28	*TAYLER, VIVIAN ALFRED	Lynton, Sheen Road, Richmond, Sur
4079	1902, Oct. 28	*¶TAYLOR, EDWIN THURLOW ...	Ashlyn, Ansdell, Lytham, Lancashir
3274	1897, Oct. 26	*TAYLOR, JOHN FRANCIS WHITE ...	Messrs. Humbert, Son, & Flint, Watf Herts.
4276	1903, Oct. 28	*¶TAYLOR, JOHN JAMES	"Uplands," London Road, Norbury, S
3904	1901, Oct. 29	*TAYLOR, RUSSELL LEIGH	The Duke of Northumberland's Est Office, 11, Eldon Square, Newcas on-Tyne.
3905	1901, Oct. 29	*TAYLOR, SAMUEL DAVIS	Park House, Park Street, Hitchin, He fordshire.
3740	1900, Oct. 30	*¶TAYLOR, WILLIAM HENRY ...	Nuttall, Nottingham.
3906	1901, Oct. 29	*¶TERRY, ARTHUR ELLIOTT ...	Adare, Ditton Road, Surbiton.

Date of Election.	PROFESSIONAL ASSOCIATES.	Address.
1902, Oct. 28	*TERRY, ERNEST FAIRCHILD ...	"Clavadell," Brighton Road, Surbiton.
1899, Oct. 30	*¶TERRY, FRANCIS WILLIAM ...	Hawthorn Villa, The Mount, York.
1899, Oct. 30	*TERRY, FRANK TREACHER... ...	95, Victoria Street, S.W.
1903, Oct. 28	*THOMAS, ERNEST JAMES	971, Millhouses, near Sheffield.
1899, Oct. 30	*THOMAS, GEORGE...	Land Registry, Survey and Map Dept., 4, Clement's Inn, W.C.
1902, Oct. 28	*THOMAS, PERCIVAL HARTLAND ...	4, Colston Street, Bristol, Gloucestershire.
1902, Oct. 28	*THOMAS, REGINALD WILLIAM ...	14, Prospect Park, Exeter, Devonshire.
1898, Oct. 29	*THOMAS, WILLIAM JAMES EDGAR	21, Tresillian Terrace, Cardiff, Glamorganshire.
1883, Dec. 17	THOMPSON, ALFRED	Estate Department, South Eastern Railway, London Bridge, S.E.
1894, Oct. 30	*THOMPSON, CLAUDE WILLIAM GEORGE HUGH	Estate Office, Escrick, York.
1893, Oct. 4	*THOMPSON, FREDERICK HUBERT	13, Vernon Street, Derby.
1897, Oct. 26	*THOMPSON, HAROLD STUART ...	The Herbarium, Royal Gardens, Kew, Surrey.
1903, Oct. 28	*‡THOMPSON, JOHN CLULOW ...	Knighton House, Leicester.
1894, Oct. 30	*THOMPSON, JOSEPH ATHERDEN ...	50, Lincoln's Inn Fields, W.C.
1896, Mar. 6	*¶THOMPSON, ROLAND O'BRIEN ...	77, Royal Hospital Road, Chelsea, S.W.
1901, Oct. 29	*THORNE, RICHARD SQUIRE ...	Hall, High Bray, South Molton, Devonshire.
1900, Oct. 30	*THOROLD, JAMES ERNEST	Sandow Lodge, Stone, Staffordshire.
1894, Feb. 18	*THORNTON, ARTHUR BRUCE ...	26, Knighton Park Road, Sydenham, S.E.
1884, Feb. 11	THURGOOD, ERNEST CHARLES ...	Estate Office, 98, High St., Lewisham, S.E.
1899, Oct. 30	*THURGOOD, LEONARD FIELDER ...	100, Kingston Road, Wimbledon, S.W.
1902, Oct. 28	*TIDEY, HERBERT GORDON	3, Pentonville Road, Islington, N.
1900, Oct. 30	*TIFFIN, THOMAS EDWARD, A.M.I.C.E.	Council Offices, Dartford, Kent.
1899, Oct. 30	*TIGHE, ARTHUR	10, South Street, Finsbury, E.C.
1903, Oct. 28	*TILLYARD, SIDNEY JOSEPH ...	4, Thorpe Mansions, Thorpe Road, Norwich.
1900, Oct. 30	*¶TIMBRELL, ALAN...	Egremont, Tavistock, Devonshire.
1901, Oct. 29	*TITTERTON, SYDNEY GEORGE PENN	40, Old Broad Street, E.C.
1902, Feb. 21	*TOMLIN, FRANCIS FERRIER ...	49, Lordship Lane, Wood Green, N.
1903, Oct. 28	*¶TOMLIN, WILLIAM, JUN.... ...	5, The Laurels, Junction Road, Andover, Hants.
1900, Oct. 30	*TONSON-RYE, JOHN REGINALD ...	Rye Court, Crookstown, Co. Cork.
1896, Oct. 28	*TOWN, HENRY ANNANDALE... ...	31, Rectory Terrace, Gosforth, Newcastle-on-Tyne.
1900, Oct. 30	*TOWNLY, RONALD STARKEY ...	3, Rofant Road, Northwood, Middlesex.
1891, Jan. 17	*TOWNSEND, GEORGE JAMES... ...	Architects' Department, London County Council, Spring Gardens, S.W.
1897, Oct. 26	*TURNER, DRYSDALE	Clydesdale, Podsmead Road, Tuffley Avenue, Gloucester.

‡ Special Forestry Certificate.

Dip. No.	Date of Election.	PROFESSIONAL ASSOCIATES.	Address.
4281	1903, Oct. 28	*TURNER, ERNEST JAMES	13, Albert Road, Saltaire, Yorkshire
3601	1899, Oct. 30	*TURNER, HENRY	4, Dorset Street, Preston, Lancashi
3179	1897, Oct. 26	*TURNER, HERBERT	16, Charles Street, Cardiff.
3909	1901, Oct. 29	*TURNER, JABEZ TENNYSON ...	35, Vincent Road, West Green, tenham, N.
1394	1887, May 23	*TURNER, PERCY	Dale Hall, Henley Rd., Ipswich, Su
3746	1900, Oct. 30	*TURNER, VINCENT...	City Engineer's Office, Westmin City Hall, Charing Cross Road, W
2612	1893, Oct. 4	*¶TYLER, WILLIAM BOTT	Estate Department, L. & N. W. Euston Station, N.W.
3602	1899, Oct. 30	*¶TYPE, MARCUS OSWALD	101, Trafalgar Rd, Moseley, Birmingl
4282	1903, Oct. 28	*¶UNDERWOOD, EDWARD	46, Richmond Road, Earl's Court, S.
1168	1884, May 5	UDNY, AUGUSTUS CHARLES... ...	Stanford Estate Office, 1, Selborne R Hove, & 142, Springfield Road, Br ton, Sussex.
4283	1903, Oct. 28	*UTTERTON, FRANK LE COUTEUR	c/o A. W. Bellamy, Seabourne F Much Fawley, Ross, Herefordshi
1596	1889, Feb. 25	*VALE, HENRY	Darlington Street, Wolverhampton, fordshire.
4284	1903, Oct. 28	*VEALE, LOUIS CHARLES	10, Coleridge Road, Finsbury Park,
3280	1897, Oct. 26	*¶VEIT, LEONARD JAMES	1, Pimlico Road, S.W.
2551	1892, Nov. 28	*VENNING, ALFRED JOHN MEYBOHM M.A. (*Oxon.*)	26, Ker Street, Devonport, Devon.
1907	1890, Nov. 22	*VERITY, ERNEST GEORGE	7, Great Marlborough Street, W.
4285	1903, Oct. 28	*VIGERS, ASTLEY ALLAN	33, Poultry, E.C.
1901	1901, Oct. 29	*VINCE, CLEMENT HARWOOD ...	3, Cliff Street, Preston, Lancashire.

Date of Election.	PROFESSIONAL ASSOCIATES.	Address.
1900, Oct. 30	*¶WACHER, THOMAS BLAKE... ...	2, Ethelbert Road, Canterbury, Kent.
1888, Feb. 20	*WADE, HENRY	10, Pitt Street, Barnsley, Yorkshire.
1890, Jan. 6	*WAIN, GEORGE SPARROW	8 and 9, Essex Street, Strand, W.C.
1895, Oct. 24	*WALDRAM, PERCY JOHN	17, Buckingham St., Charing Cross, S.W.
1904, Feb. 18	*WALKER, HOWARD JAMES	Bank Chambers, Wigan, Lancashire.
1903, Oct. 28	*WALKER, JAMES WILLIAM BOYD	14, Clarence Road, Southsea, Hampshire, and 1A, Southgate Street, Winchester.
1880, Mar. 1	WALKER, LEON VICTOR	79, Dunsmure Road, Stamford Hill, N.
1896, Jan. 21	*¶WALKER, WILLIAM SELVES ...	22, Moorgate Street, E.C.
1903, Oct. 28	*WALL, IRVING	Brookfield, Cambridge Road, Huddersfield, Yorkshire.
1903, Oct. 28	*WALLACE, HERBERT ALEXANDER CRAIG	Sewerage Department, Town House, Cape Town, S.A.
1904, Feb. 18	*WALLER, HARRY BAINES	52, Tylney Road, Widmore, Bromley, Kent.
1900, Oct. 30	*¶WALSH, FREDERICK LEOPOLD MORFEE	195, Gleneldon Road, Streatham, S.W.
1903, Oct. 28	*WALTER, SYDNEY JAMES	"Ecclesbourne," New Wanstead, Essex.
1897, Oct. 26	*WALTON, EDGAR THOMAS	11, Cotherstone Rd., Brixton Hill, S.W.
1900, Oct. 30	*WALTON, LEON MAITLAND	"Ingleside," Manor Way, Bexley, Kent.
1902, Oct. 28	*WARD, EDWARD JOHN	Burnville, Brentnor, Tavistock, Devonshire.
1898, Oct. 29	*WARD, MARTIN HAMMOND ...	St. Leonards Farm, Thames Ditton, Surrey.
1898, Oct. 29	*WARING, HOLT	Waringstown, Co. Down, Ireland.
1903, Oct. 28	*WASON, EUGENE MONIER	c/o The Secretary, Board of Agriculture and Fisheries, 4, Whitehall Place, S.W.
1883, Dec. 17	WATERER, CLARENCE	Dover House, Chertsey, Surrey.
1900, Oct. 30	*WATERS, FRANK	15, Bank Plain, Norwich, Norfolk.
1891, Jan. 17	*WATSON, CLAUDE HENRY	"Sunnyside," Woolsington, Newcastle-on-Tyne.
1899, Oct. 30	*¶WATSON, DAVID ALEXANDER ...	Estate Office, Shirburn, Wallingford.
1890, Feb. 24	WATSON, GEORGE	Parliament Mansions, Victoria St., S.W.
1893, Oct. 4	*WATSON, WILLIAM JAMES	13, Pembroke Square, Kensington, W.
1901 Oct. 29	*¶WATT, ALEXANDER LINDSAY ...	Ablington House, Figheldean, Salisbury, Wilts.
1902, Oct. 28	*WATTS, ARTHUR RONALD	8, Frederick's Place, E.C.
1903, Oct. 28	*WATTS, ERNEST WILLIAM	Horse Guards, Whitehall, S.W.
1903, Oct. 28	*WATTS, FREDERICK SPRING ...	38, Sloane Street, S.W.
1902, Oct. 28	*WAUGH, REGINALD ROBERT ...	c/o C. S. A. R., P. O. Box 1121, Johannesburg, B.S.A.
1892, Nov. 28	*WEATHERHEAD, DAVID WILKINSON	50, Low Street, Keighley, Yorkshire.
1896, Oct. 28	*WEAVER, HENRY PERCIVAL FRANCIS	Lye, Stourbridge, Worcestershire.
1888, Dec. 10	*WEBB, FREDERIC NOEL	Babraham, Cambridge.

Dip. No.	Date of Election.	PROFESSIONAL ASSOCIATES.	Address.
3441	1898, Oct. 29	*WEEKES, CYRIL SWAFFER	100, Beaufort Street, S.W.
3316	1898, Feb. 18	*WEIR, JAMES SCOTT, A.M.I.C.E.	Borough Engineer's Office, Town Halifax, Yorkshire.
4088	1902, Oct. 28	*¶WELLS, ARTHUR HARVEY ...	Hill Side, Ashby-de-la-Zouch, Leic shire.
4293	1903, Oct. 28	*WESTBROOK, CHARLES EDWARD	85, Victoria Street, St. Alban's, He
3913	1901, Oct. 29	*¶WEST, ARTHUR SMITH	Municipal Offices, Harrogate, shire.
3754	1900, Oct. 30	*WEST, SIDNEY HERBERT	Steyning, Sussex.
941	1883, Apr. 30	WESTON, JOSEPH AURELIUS... ...	83, High Street, Bedford.
3755	1900, Oct. 30	*WETENHALL, EDWARD BOX, A.R.I.B.A.	Wyken, Woodside, Wimbledon, S.W
3756	1900, Oct. 30	*WHATLEY, ERNEST JAMES	"Panton House," Cabbal Road, Cro Norfolk.
4294	1903, Oct. 28	*WHEELER, FRANCIS WEST	4, Harwood Road, Walham Green, S
3757	1900, Oct. 30	*¶‡WHELDON, MARTIN LOWISH ...	Care of F. Handley, 17, St. Mary's,
4089	1902, Oct. 28	*WHITAKER, HUGH	Hoxne, Eye, Suffolk.
4090	1902, Oct. 28	*WHITE, ARTHUR VIVIAN	The Poplars, North End, Portsm Hampshire.
3758	1900, Oct. 30	*¶WHITE, BENJAMIN WILLIAM ...	15, 16, & 17, Eldon Street, E.C.
2997	1895, Oct. 24	*WHITE, WALTER ERNEST COATES	Manor Farm, Beedon, Newbury, Be
3025	1896, Jan. 21	*WHITE, WILLIAM, JUN.	33, Pilgrim Street, Newcastle-u Tyne, Northumberland.
3914	1901, Oct. 29	*WHITEHEAD, ERNEST MORTIMER	95, Earlsfield Road, Wandsworth Com S.W.
3612	1899, Oct. 30	*¶WHITELEY, CYPRIAN CHARLES OSWALD	82, Queen Street, E.C.
4091	1902, Oct. 28	*WHITTINGTON-COOPER, ALFRED ...	26, Kenilworth Court, Putney, S.W.
4092	1902, Oct. 28	*¶WHITTON, HAROLD WILLIAM ...	Caswell, Towcester, Northamptonsh
4093	1902, Oct. 28	*WHYTEHEAD, JOHN LAYARD ...	The Vicarage, Warminster, Wiltshi
3915	1901, Oct. 29	*¶WIDDICOMBE, CHARLES EDWIN	Ashbourne, Well Street, Ryde, Is Wight.
9163	1901, Oct. 29	*¶WIGLEY, HERBERT HENRY ..	Winslow, Buckinghamshire.
3167	1897, Feb. 17	*WIGRAM, HENRY JOSEPH	The Lodge, South Collingham, New Nottinghamshire.
3026	1896, Jan. 21	*¶WILDE, SIDNEY ALGERNON ...	89, Larkhall Rise, Clapham, S.W.
3917	1901, Oct. 29	*¶WILFORD, CECIL MARSHALL ...	Ainstable, Armathwaite, Cumberlan
4295	1903, Oct. 28	*¶WILKES, JOHN FISKE (B.A. Cantab.)	Wenden Lofts, Saffron Walden, Esse
4094	1902, Oct. 28	*WILKS, CLEMENT	15, St. Mary's Road, Highbury, N.
2146	1891, May 23	*WILKS, ERNEST STRINGER	Douglas Avenue, Hythe, Kent.
3610	1899, Oct. 30	*¶WILLIAMS, ARTHUR CODRINGTON	Hunston Farm, Chichester, Sussex.
3285	1897, Oct. 26	*¶WILLIAMS, DANIEL SMITH ...	New Sewerage Works, West Stow, St. Edmund's, Suffolk.

‡ Special Forestry Certificate.

Date of Election.	PROFESSIONAL ASSOCIATES.	Address.
1902, Oct. 28	*WILLIAMS, FRANK WARREN ...	Magnolia, Ennismore Avenue, Guildford, Surrey.
1904, Feb. 18	*WILLIAMS, HAROLD	Eridge House, Chichester Road, Croydon.
1898, Oct. 29	*WILLIAMS, PETER LLOYD ARMSTRONG...	26, Primrose Mansions, Battersea Park, S.W.
1900, Oct. 30	*¶WILLIAMS, RICHARD ERNEST HAVARD	c/o Messrs. Furber, 3, Warwick Court, W.C.
1876, Apr. 3	WILLIAMS, WILLIAM WELSBY ...	Farnham, Surrey.
1903, Oct. 28	*WILLMOT, ARTHUR CHARLES ...	Rushall, Pewsey, Wilts.
1896, Oct. 28	*¶WILLOUGHBY, CHARLES ALBERT	22, Chancery Lane, W.C.
1884, Jan. 28	WILLOUGHBY, CHARLES WILLIAM	22, Chancery Lane, W.C.
1902, Oct. 38	*¶WILLOUGHBY, FRANK	Estate Office, Merstham, Surrey.
1901, Oct. 29	*¶WILSON, EVERARD JOHN	c/o Messrs. Tuckett and Son, 2, Basinghall Street, E.C.
1891, Nov. 4	*WILSON, JAMES CALVERT	Worsthorne Estate Office, Burnley, Lancashire.
1892, Nov. 28	*WILSON, JOHN HAYES	10, Upstall Street, Camberwell, S.E.
1897, Oct. 26	*WILTON, JAMES PERCY	143, Hartington Road, Sefton Park, Liverpool, Lancashire.
1899, Oct. 30	*WITHAM, JAMES BERNARD	203, Temple Chambers, 33, Brazennose Street, Manchester.
1901, Oct. 29	*¶WONNACOTT, HOWARD JOHN ...	Ingledene, 130, Oglander Road, East Dulwich, S.E.
1898, Oct. 29	*¶WONTNER-SMITH, PERCY	Bishop's House, 1, Bishopsgate Street Without, E.C.
1901, Oct. 29	*WOOD, HERBERT CALVERT... ...	Chester's Estate Office, Humshaugh-on-Tyne, R.S.O., Northumberland
1898, Feb. 18	*¶WOOD, JOHN EDWARD	28, Nightingale Lane, Balham, S.W.
1902, Oct. 28	*¶WOOD, JOHN GUY	6, Mount street, Grosvenor Square, W.
1901, Oct. 29	*WOOD, ROWLAND HARRY	Ashleyville, Southend-on-Sea, Essex.
1899, Oct. 30	*WOODCOCK, FRANK SYDNEY ...	Royal Engineer Office, Bloemfontein, Orange River Colony, South Africa.
1887, Jan. 10	*WOOLNOUGH, JOHN WILLIAM ...	6, Vicarage Drive, Eastbourne, Sussex.
1897, Feb. 17	*WOOLNOUGH, TOM...	Fleet House, Hoppers Road, Winchmore, Middlesex.
1896, Oct. 28	*WORDSWORTH, CHRISTOPHER ...	Brooklands, South Godstone, Surrey.
1887, Dec. 19	*WORTHINGTON, JAMES SCOTT ...	4, Frederick's Place, E.C.
1902, Oct. 28	*WRIGHT, ARTHUR EDGAR	Public Works Department, Hong Kong, China.
1903, Oct. 28	*¶WRIGHT, CHARLES LEE	City Valuer's Department, Council House, Bristol.
1897, Oct. 26	*WRIGHT, ERNEST BERESFORD FITZHERBERT	The Grange, Butterley, Derby.
1894, Oct. 30	*WRIGHT, PHILIP CHETWOOD ...	Brattleby Hall, near Lincoln.
1899, Oct. 30	*WRIGHT, THOMAS HENRY	Northrepps, Veronica Road, Upper Tooting, S.W.

Dip. No.	Date of Election.	PROFESSIONAL ASSOCIATES.	Address.
3923	1901, Oct. 29	*¶WRIGHT, WALTER BRERETON...	c/o Bidwell and Sons, Benet St Cambridge.
3615	1899, Oct. 30	*WRIGHTSON, JOHN FREDERICK HUTTON	College of Agriculture, Downton, W
3924	1901. Oct. 29	*WYLEY, HENRY CHARLES	Newmarket Buildings, Bridgnorth, S
3616	1899, Oct. 30	*YEWDALL, FRANCIS EDWARD ...	7, Baronsfield Road, St. Margar Twickenham, Middlesex.
4099	1902, Oct. 28	*YOUATT, ERNEST	Equitable Chambers, 108, St. Ge Street, Cape Town, South Africa.
4100	1902, Oct. 28	*YOUNG, C. ALEX.	51, Coleman Street, E.C.
4101	1902, Oct. 28	*YOUNG, HERBERT OSWALD	Imperial Buildings, Exchange St East, Liverpool, Lancashire.
3449	1898, Oct. 29	*YOUNG, JAMES DAWBARN	6, Quality Court, Chancery Lane, W.
3761	1900, Oct. 30	*YOUNG, KENNETH JAMES	51, Coleman Street, E.C.
2999	1895, Oct. 24	*YOUNG, WILLIAM	4, St. Peter's Street, St. Albans, H fordshire.

Total number of Professional Associates, 1,123.

Associates.

Date of Election.	ASSOCIATES.	Address.
1897, Oct. 26	ADKINS, WILLIAM RYLAND DENT	2, Temple Gardens, E.C.
1876, Nov. 27	ALVERSTONE, THE RIGHT HONOURABLE LORD, G.C.M.G., LORD CHIEF JUSTICE OF ENGLAND (*Associate of Council*).	Hornton Lodge, Pitt Street, Kensington, W.
1880, Dec. 13	BANKES, JOHN ELDON, K.C.	3, Hare Court, Temple, E.C.
1898, May 14	BARNES, GEORGE FREDERICK ...	London County Council, Spring Gardens, S.W.
1899, Oct. 30	BARRY, CHARLES EDWARD	Parliament Mansions, Victoria Street, Westminster, S.W.
1868, July 27	BARRY, SIR JOHN WOLFE, K.C.B., M.I.C.E. (*Associate of Council*)	21, Delahay Street, S.W.
1879, Feb. 3	BEALE, JAMES SAMUEL	28, Great George Street, S.W.
1892, Feb. 26	BELLEWES, GEORGE OLIVER... ...	45, Parliament Street, S.W.
1900, Oct. 30	BERKELEY, ROWLAND THOMAS MORTIMER, B.A. (*Cantab.*)	Temple Gardens, Temple, E.C., and 72, Belgrave Road, S.W.
1899, Feb. 16	BLACKSHAW, JOHN FRANK	The Midland Dairy Institute, Kingston Fields, Derby.
1890, Jan. 6	BOULGER, GEORGE EDWARD SIMONDS...	11, Onslow Road, Richmond, Surrey.
1884, Feb. 11	BUND, JOHN W. WILLIS	15, Old Square, Lincoln's Inn, W.C.
1890, May 29	CADELL, GEORGE	c/o Messrs. Cowan and Dalmahoy, 31, Charlotte Square, Edinburgh.
1871, Feb. 13	CASTLE, EDWARD JAMES, K.C. ...	1, Hare Court, Temple, E.C.
1891, Jan. 17	CLARKE, SIR ERNEST	13, Hanover Square, W.
1883, Dec. 17	CLARKE, SIR EDWARD, K.C. ...	2, Essex Court, Temple, E.C.
1883, Dec. 17	CLODE, WALTER	3, Harcourt Buildings, Temple, E.C.

Date of Election.	ASSOCIATES.	Address.
1886, Dec. 6	CLUTTON, HUBERT SPENCER ...	9, Whitehall Place, S.W.
1894, Oct. 30	COLAM, ROBERT FREDERICK ...	4, Essex Court, Temple, E.C.
1900, Feb. 23	COURTHOPE-MUNROE, HARRY, M.A. (*Cantab.*)	3, Harcourt Buildings, Temple, E.C.
1896, Jan. 21	COWARD, JOHN CHARLES LEWIS, K.C.	3, Pump Court, Temple, E.C.
1891, Nov. 4	COWLARD, CHRISTOPHER LETHBRIDGE...	Launceston, Cornwall.
1885, Jan. 12	CRIPPS, CHARLES ALFRED, K.C., M.P.	1, Essex Court, Temple, E.C.
1900, Feb. 23	DANCKWERTS, WILLIAM OTTO ADOLPH JULIUS, K.C.	7, New Court, Carey Street, W.C.
1898, Oct. 29	DOWNIE, ALEX. FRANCIS MACKENZIE	Alton, Hants.
1892, Nov. 28	EMDEN, T. WALTER L.	105 and 106, Strand, W.C.
1886, Jan. 11	FREAM, WILLIAM	Downton, Wilts.
1878, Feb. 11	FREEMAN, GEO. MALLOWS, K.C....	Palace Chambers, 9, Bridge Street, S.W., and 11, King's Bench Walk, Temple, E.C.
1878, Mar. 11	FRESHFIELD, EDWIN	5, Bank Buildings, E.C.
1890, Feb. 24	GAYTON, CHARLES	Much Hadham, near Ware, Herts.
1879, Apr. 28	GEPP, CHAS. BRAMSTON OSBORNE	Chelmsford, Essex.
1895, Mar. 6	GLEN, REGINALD CUNNINGHAM ...	1, New Court, Temple, E.C.
1899, Feb. 16	GRAHAM, WILLIAM VAUX	5, Queen Anne's Gate, S.W.
1874, Jan. 5	GRANTHAM, RICHARD FUGE, M.I.C.E.	23, Northumberland Avenue, W.C.
1882, Mar. 27	HAMILTON, HENRY BEST HANS ...	1, Brick Court, Temple, E.C.
1884, May 5	HAMOND, THOMAS ASTLEY HORACE	Manor House, Swaffham, Norfolk.
1897, Oct. 26	HILL, JOHN SMITH, B.A., B.SC. (*Lond.*)	The Agricultural College, Aspatria, Cumberland.
1887, Jan. 24	HUDSON, ALFRED ARTHUR	5, Paper Buildings, Temple, E.C.

Date of Election.	ASSOCIATES.	Address.
1887, May 23	KINCH, EDWARD	Royal Agricultural College, Cirencestc
1873, Apr. 21	KING, WILLIAM, M.I.C.E.	Gas Office, Duke Street, Liverpool.
1891, Nov. 4	LEWORTHY, JOHN HENRY	29, Fleet Street, E.C.
1874, Feb. 16	LITTLER, SIR RALPH DANIEL MAKINSON, K.C., C.B.	6, Pump Court, Temple, E.C.
1888, Mar. 5	LUARD, MAJOR-GEN. CHARLES EDWARD, R.E.	Ightham Knoll, near Sevenoaks, Kent.
1891, May 23	MALDEN, WALTER JAMES	The Colonial College, Hollesley Ba Suffolk.
1900, Oct. 30	MARCHANT, JAMES ROBERT VERNAM, M.A. (*Oxon*)	5, Paper Buildings, Temple, E.C.
1856, Dec. 6	MARSHALL, FREDERICK, K.C. ...	3, Harcourt Buildings, Temple, E.C.
1891, Nov. 4	MENCE, PHILLIP ALLAN...	Banstead House, Fontenoy Roa Balham, S.W.
1895, Oct. 24	MILLES, CHARLES WILLIAM	8, Whitehall Place, S.W.
1888, Nov. 12	MOULTON, JOHN FLETCHER, K.C., M.P.	11, King's Bench Walk, Temple, E.C.
1900, Oct. 30	MUNSEY, THOMAS HENSMAN ...	Westminster City Hall, Charing Cro Road, W.C.
1895, Oct. 24	PAIN, ARTHUR CADLICK, M.I.C.E...	17, Victoria Street, S.W.
1884, Feb. 23	PINCHES, EDWARD EWIN	2, Essex Court, Temple, E.C., and Nevern Road, South Kensington, S.V
1884, Oct. 30	REDMAN, JOSEPH HAWORTH... ...	2, New Court, Lincoln's Inn, W.C.
1896, June 2	RICHARDS, HENRY CHARLES, K.C., M.P.	Caerhayes, St. Leonards-on-Sea, Susse
1885, Jan. 26	RICKARDS, ARTHUR GEORGE, K.C., M.A. (*Oxon.*)	Palace Chambers, 9, Bridge Street, S.W and 11, King's Bench Walk, Temple, E.C
1882, Jan. 16	RIGG, HERBERT ADDINGTON... ...	41, Parliament Street, S.W.
1895, Oct. 24	RUSSELL, CHARLES ALFRED, K.C.	2, Harcourt Buildings, Temple, E.C.
1884, Dec. 8	SCOTT, THE HON. HENRY ROBERT	Belvoir Castle, Grantham, Lincolnshir
1889, Feb. 11	SETH-SMITH, ARCHIBALD	Silvermere, Cobham, Surrey.

Date of Election.	ASSOCIATES.	Address.
1888, Apr. 30	SETH-SMITH, FREDERICK	The Lodge, Upton Gray, Winchfield, Hant
1901, Feb. 21	SMITH, JOHN EDWARD	St. Margaret's, Highfield, Ashtea Surrey.
1896, Jan. 21	SOMERVILLE, WILLIAM, M.A., D.SC.	4, Whitehall Place, S.W.
1884, Jan. 14	STATHAM, WILLIAM ARNOLD... ...	12, King's Bench Walk, Temple, E.C and 23, Abingdon Street, S.W.
1882, Jan. 16	STEPHENS, PEMBROKE S., K.C. ...	Palace Chambers, 9, Bridge Stree Westminster, S.W.
1875, Jan. 4	STRUTT, THE HON. FREDERICK ...	Milford House, Derby.
1896, Jan. 21	STUTFIELD, ALFRED ROBERT OGILVIE	The Bedford Estate Office, Bloomsbury.
1877, Dec. 10	SUTTON, HENRY	Farrar's Building, Temple, E.C.
1899, Feb. 16	TERRY, GEORGE PERCY WARNER	17, Gorst Road, Wandsworth Commo S.W.
1880, Dec. 13	THOMAS, HUBERT	Watford, Herts.
1899, Oct. 30	VAUGHAN, EDWARD JOSEPH	2, Mitre Court Buildings, Temple, E.C.
1891, Mar. 14	VEASEY, THOMAS FREDERICK ...	26, Woodview Gardens, Highgate, N.
1902, Oct. 28	WALLACE, ROBERT	Edinburgh University.
1885, May 18	WARREN, REGINALD AUGUSTUS ...	Preston Place, Worthing, Sussex.
1884, May 26	WELLS, ALFRED DODD	Sinodun, Wallingford, Berks.
1886, May 17	WHEELER, THOMAS WHITTENBURY, K.C....	11, King's Bench Walk, Temple, E.C.
1876, Dec. 18	WILL, JOHN SHIRESS, K.C.	Palace Chambers, 9, Bridge Street, S.W. and 2, Garden Court, Temple, E.C.
1875, Mar. 15	WINCKWORTH, LEWIS	31, Abingdon Street, S.W.
1870, Jan. 10	WING, THOMAS TWINING	Upper Hale, Farnham, Surrey.
1903, Feb. 20	WRIGHT, ROBERT PATRICK	West of Scotland Agricultural College 6, Blythswood Square, Glasgow.
1890, Nov. 22	WRIGHTSON, JOHN	College of Agriculture, Downton, Wilts

Total number of Associates, 80.

Colonial Fellows.

Date of Election.	COLONIAL FELLOWS.	Address.
1902, Feb. 21	ALLEN, RAYMOND CECIL	Chief Surveyor, Uganda Protectorate, British East Africa, via Mombasa.
1899, Oct. 30	BAKER, WILLIAM ANTHONY	Surveyor-General's Office, Kingston, Jamaica, B.W.I.
1896, Oct. 28	BATY, SEBERT CONRAD ELTON ...	Mombasa, British East Africa.
1902, Feb. 21	BIDWELL, REGENT ALFRED JOHN	Singapore, and Colonial Club, Whitehall Court, London, S.W.
1893, Oct. 4	BOWEN, ERNEST FRANCIS SINDERBY	Public Works Department, Barbadoes, West Indies.
1902, Oct. 28	BUYZER, CHARLES ALLAN OSWALD	Surveyor and Engineer's Office, The Courts, Hultsdorf, Colombo, Ceylon.
1902, Oct. 28	CARTWRIGHT, FRANK	Hourah, Bengal, India.
1896, Oct. 28	COOPER, JOHN ASHLEY	Surveyor's Office, Cooper's Hill, Castries, St. Lucia, B.W.I.
1901, Oct. 29	COWLEY, FRANK	Parkview, Launceston, Cornwall.
A.1896, Oct. 28 F.1900, May 21 C.F.1904, May 18	*COLLINS, HORACE	Johannesburgh, B.S.A.
1904, Feb. 18	GILL, JAMES HERBERT WAINWRIGHT...	c/o Messrs. Skrine and Co., Colombo, Ceylon.
1901, Oct. 29	GODFREY, CHARLES HENRY... ...	Municipal Offices, Shanghai, China.
1904. Feb. 18	GURNEY, JAMES STRATTON	Thomason Civil Engineering College, Roorkee, India.
F.1900, Oct. 30 C.F.1904, Jan. 1	MCCAW, GEORGE TYRRELL, B.A. (*Dublin.*)	6, Ely Place, Dublin.
1896. June 2	MCGAHAN, AMOS HARVEY	Gordon Town, P.O., Jamaica, B.W.I.
1894, Feb. 23	MILLER, WILLIAM	Nassau, Bahamas, West Indies.
1903, Oct. 28	NAIDU, RAMASWAMI NARAYANASWAMI	Vinjamoor P.O., Nellore District, Southern India.
1902. Feb. 21	OKE, JOHN ATHANASIUS	19, Shrewsbury Road, Bayswater, W., and Lagos, West Africa.
1902, Feb. 21	OSMENT, HARRY SHORTHOSE ...	7, Carteret Street, Queen Anne's Gate, S.W., and The Windward Islands, B.W. Indies.

Dip. No.	Date of Election.	COLONIAL FELLOWS.	Address.
4318	1904, Feb. 18	PETERS, ISHMAEL EDWARD	Engineering Society, King's Colle W.C., and Lagos, West Africa.
3943	1902, Feb. 21	PHILLIPS, WILLIAM WHITE	11, 2nd Floor, Saving Bank Chamb St. George's Street, Cape Town, B.S.
3451	1898, Oct. 29	ROGERS, COLIN PERCY	Royal Engineer Office, Freeto Sierra Leone, West Africa.
4054	1902, Oct. 28	STOTT, CLEMENT HORNER	Harwin's Arcade, Timber Street, a P. O. Box 7, Pietermaritzburg, Nat South Africa.
4319	1904, Feb. 18	STOTT, PERCY WILLIAM	Verulam, Natal, South Africa.
3944	1902, Feb. 21	TOMLINSON, WILLIAM J.	Pietermaritzburg, Natal, South Afric
3169	1897, Feb. 17	USHER, CHARLES RICHARD	Belize, British Honduras.
3283	A.1897, Oct. 26 F. 1902, Apr. 28 C.F.1904. Apr. 18	*WATERFIELD, HORACE CLARE ...	Government House, Wellington, N.Z.
4106	1902, Oct, 28	WILLIAMS, LUTHER EDGAR ...	Roseau, Dominica, B.W.I.

Total number of Colonial Fellows 28.

Students.

Enrolled.	STUDENTS.	Address.
1902	ADAMS, HUBERT ARTHUR	c/o C. A. Russell, K.C., 53, Netherhall Gardens, Hampstead, N.W.
1901	ALLEN, OLIVER WYLIE	8, Frederick's Place, Old Jewry, E.C.
1902	AMOORE, HENRY JAMES	"Robindean," Manor Court Road, Hanwell.
1901	ANDREWS, RONALD SEYMOUR ...	Chester Villa, Woodstock Road, Oxford.
1904	ANGELL, HENRY GERALD	Knowsley House, Sandbank Road, Parkstone, Dorset.
1902	ARNOLD, WALTER JOHN	Chilland, Winchester.
1900	ASHBRIDGE, PRENTICE MOORE ...	Southweald, Grove Park, Wanstead, E.
1902	AYNSLEY, DOUGLAS FARRER ...	1, Rectory Terrace, Gosforth, Newcastle-on-Tyne.
1901	BAKER, FRANK LESLIE	c/o W. G. Cooke, 35, Walbrook, E.C.
1903	BAKER, OSWALD HENRY	Lucerne, Ringwood Road, Poole.
1904	BALDEN, JOHN WHITELEY	Bywell, Leeds Road, Dewsbury, Yorks.
1903	BALL, FRANCIS LEOPOLD	Whittington Chambers, King's Road, Southsea.
1903	BALLS, RUPERT ARNOLD	6, Queen's Road, Clapham Park, S.W.
1903	BANNISTER, MONTAGU DOUGLAS...	Limehurst, Hayward's Heath, Sussex.
1904	BARNES, HARRY C. H.	South Eastern Agricultural College, Wye, Kent.
1902	BARRONS, BERTRAM ALONZO ...	40, Pennsylvania Road, Exeter, Devon.
1904	BARTRAM, REGINALD SIDNEY ...	Bridge House, Tonbridge, Kent.
1904	BAXTER, GEORGE COULSON	1, Frederick's Place, Old Jewry, E.C.
1902	BAYNE, EDWARD GORDON	1, Dartmouth Park Avenue, N.W.
1902	BELL, HUGH ARUNDEL	3, Hunter's Lane, Wavertree, Liverpool.
1903	BENTLEY, ARTHUR WATERHOUSE...	78, Avenue Road, Regent's Park, N.W.
1903	BETTRIDGE, SIDNEY W.	9, St. Mary's Road, Tonbridge, Kent.
1904	BIGWOOD, ERNEST GUY...	The Berrow, Barnt Green, near Birmingham.
1902	BINGHAM, CHARLES JOHN	"Highworth," Brockley Park, Forest Hill, S.E.
1902	BIRD, AUGUSTUS GORDON	15, Holland Villas Road, Kensington, W.

Enrolled.	STUDENTS.	Address.
1902	BLACKBOURN, BASIL	101, Ritherdon Road, Upper Tooting, S.W.
1904	BLACKFORD, ARTHUR GEORGE ...	12, King's Avenue, Ealing, W.
1902	BLAKE, REGINALD LAPTHORNE ...	42, Harpenden Road, West Norwood, S.E.
1902	BLESSLEY, VICTOR HENRY	59, Hillfield Road, West Hampstead, N.W.
1903	BLOMFIELD, LEONARD GARDNER...	Wimborne Minster, Dorset.
1902	BODEN, HAROLD CASSWELL ...	Nashville, 54, Clarendon Road, Putney, S.W.
1902	BOURDAS, EDGAR	Dunoon House, Clapham Common, S.W.
1901	BOWLER, LIONEL VICTOR	Green Bank, York Road, Southend, Essex.
1903	BRADLEY, BENJAMIN, JUN.	The Blanquettes, Worcester.
1903	BRAY, JOHN SANDERS	7, Silver Terrace, St. David's, Exeter, Devon.
1902	BRIDGER, ARTHUR EDWARD ...	Greywell, Winchfield, Hants.
1903	BRITTEN, WILLIAM GEORGE CHILD	Edenhurst, Bodenham Road, Hereford.
1904	BROAD, GORDON LESLIE	200, High Street, Lewes, Sussex.
1904	BROWN, CHAS. GEORGE...	Park Place, Harefield, Middlesex.
1903	BROWN, HENRY INGLIS	42, St. Paul's Road, Tottenham, N.
1901	BROWN, HORACE	Manor Farm, Singleton, Chichester, Hants.
1903	BROWN, JOHN EDWARD	Bilbrough Lodge, near York.
1902	BROWN, JOHN W. H.	Whickham House, Whickham R.S.O., Durham.
1901	BROWN, WILLIAM ERNEST	33, Parkgate Road, Chester.
1902	BRUZAUD, SIDNEY JOHN	c/o Miss Simpson, "Shetlands," Nightingale Lane, S.W.
1903	BRYANT, HUGH SPENCER	Christ's Hospital, West Horsham, Sussex.
1904	BUCKMASTER, HERBERT HAMBLETON	47, Sloane Street, S.W.
1904	BULTEEL, WALTER GORDON	Charlestown, St. Austell, Cornwall.
1904	BURBIDGE, FREDERICK CHARLES	75, Victoria Road North, Southsea, Hants.
1901	BURCH, HERBERT	66, Cromwell Avenue, Highgate, N.W.
1902	BURGE, JAMES THOMAS	19, Burlington Road, Clifton, Bristol.
1903	BURNETT, LESLIE TREW	Weston House, Amhurst Park, Stamford Hill, N.
1903	BURR, CLIFFORD JOHN FREDERICK	9, Stanley Gardens, Willesden Green, N.W.
1903	BURR, FREDERICK MALCOLM ...	Terlings, Orleans Road, Hornsey Rise, N.
1903	BURSTAL, ARTHUR CYRIL	"Holywell," Marryat Road, Wimbledon, S.W.
1904	BUTLER, THOMAS LIONEL	Broadlands, Weybridge, Surrey.

Enrolled.	STUDENTS.	Address.
1904	BUTLIN, WILLIAM B. L....	Eastwood Lodge, Leamington, Warwickshire.
1904	BYSHE, PERCY SHELLEY	19, St. Anne's Crescent, Lewes, Sussex.
1904	CALLANDER, CUTHBERT BURN ...	The Red House, Warwick.
1904	CALLF, GEORGE STUART	104, The Avenue, West Ealing, W.
1901	CARLISLE, WILLIAM JOSEPH... ...	27, Kildare Terrace, Bayswater, W.
1900	CARPENTER, LAURENCE... ...	97, Highbury Quadrant, N.
1902	CARTER, FRED	2, Park Crescent, Bradford, Yorkshire.
1904	CARTER, JOHN EDWARD	95, Vassall Road, Brixton, S.W.
1904	CARVER, ALBERT GEORGE	16, St. Nicholas Road, Upper Tooting, S.W.
1903	CASTELL, DOUGLAS CHARLES ...	1, Cambalt Road, Putney Hill, S.W.
1903	CATON, EDMUND PERCY	High Street, Shefford, Bedfordshire.
1902	CHALK, THOMAS PHILIP NEWLYN	Linton, Cambridgeshire.
1902	CHAMBERLAIN, HARRY SAMUEL...	91, St. Andrew's Road, Southsea, Hants.
1901	CHAPPLE, JOHN GRADDON	59, Burnaby Gardens, Chiswick, W.
1903	CHATLEY, HERBERT	240, Holloway Road, N.
1902	CLARK, DUNCAN WALTER	7, Sion Row, Twickenham.
1904	CLARK, LESLIE EDWARD	Hackwood, Bromley, Kent.
1902	CLARK, LOUIS VAN	92, Wickham Road, Brockley, S.E.
1904	CLARK, RAYMUND MONTAGUE ...	73, Maison Dieu Road, Dover.
1901	CLARKE, ALFRED HOWARD	Ashbourne, The Drive, Walthamstow.
1902	CLARKE, MICHAEL WALLIS	Seamount, Passage West, Co. Cork.
1903	CLAPHAM, MURRAY	Bargate, Grimsby.
1901	CLEMENS, WILLIAM CECIL	187, Union Street, Plymouth, Devon.
1902	CLEMESHA, ARCHIBALD INGRAM...	1, Arlington Park Gardens North, Chiswick, W.
1902	CLOVER, PERCY TALBOT	3, St. David's Road, Southsea, Hants.
1903	COATES, WILLIAM HENRY BRUNTON	61, Mitcham Lane, Streatham, S.W.
1902	COLLIN, HAROLD ARTHUR	19, St. Andrew's Street, Cambridge.
1904	CONWAY, GILBERT STANLEY... ...	63, Ravensworth View, Gateshead-on-Tyne, Durham.
1904	COOK, GEORGE...	Chapel Street, Lye, near Stourbridge, Worcester.
1901	COOPER, HOWARD	Dashwood, Gravesend, Kent.
1902	CORBLE, ARCHIBALD HARRISON ...	Bridge House, Waltham Abbey, Essex.
1902	CORFIELD, ARTHUR KING	Bradley Gate, Northenden, Cheshire.

Enrolled.	STUDENTS.	Address.
1903	COX, DOUGLAS HAROLD	"Wakefield," Ballards Lane, North Finchley, N.
1903	COXON, HERBERT ARCHIBALD ...	Grindon House, Parklands, Surbiton.
1904	CREASEY, JOHN ROGERS, JUN. ...	Beltoft, Hadlow Road, Sidcup, Kent.
1902	CRIMES, FREDERIC CHARLES ...	Holly Villas, Lawton, Kidsgrove, Staffordshire.
1904	CROCKWELL, STANLEY G.	Court Netherleigh, Torquay, Devon.
1902	CROOK, DOUGLAS	Hill Brow, Ashtead, Surrey.
1904	CROW, FREDERICK LEWIS, JUN. ...	Shellwood Manor, Leigh, near Reigate, Surrey.
1902	DAMPNEY, CYRIL JOHN	Charnwood, Haven Green, Ealing.
1901	DARBY, HAROLD	20, Leopold Road, East Finchley, N.
1904	DARBY, WILLIAM RENDALL	96, Ladbroke Grove, Notting Hill, W.
1903	DAVIS, ARTHUR HENRY	40, Ladbroke Grove, Kensington Park Gardens, W.
1902	DAWSON, JOSHUA	St. John's Chapel, R.S.O., Co. Durham.
1904	DAY, JOSEPH REYNOLDS	Thorpe Coombe, Forest Road, Walthamstow, E.
1902	DIXON, FRANCIS EVELYN	St. Botolphs, Ashey Road, Ryde, Isle of Wight.
1904	DIXON, MACDONALD	Cambridge House, Lynsted, near Sittingbourne, Kent.
1904	DREW, JOHN DENYS	Northbrook, Starcross, Devon.
1902	DUNN, WILLIAM	97, Gresham Street, E.C.
1904	DURBRIDGE, WALTER	Lyndhurst, South Hill Park, Bromley, Kent.
1903	EASTMAN, ARCHIBALD GAREY ...	"Garth," Kemerton Road, Beckenham, Kent.
1903	EASTON, JACK LESLIE	20, Terminus Road, Eastbourne, Sussex.
1901	EDWARDS, SPENCER	Pinville, 65, Pinhoe Road, Exeter, Devon.
1904	EGAN, GORDON PALMER	Clarence School, Weston-super-Mare, Somersetshire.
1903	EGERTON, BRYAN SELWYN	Elmstead Court, Chislehurst, Kent.
1901	EGGAR, CHARLES	10, West Street, Farnham, Surrey.
1902	EILOART, FERDINAND ROBERT ...	17, Elsworthy Road, London, N.W.

Enrolled.	STUDENTS.	Address.
1901	ELLEN, FREDERICK CHARLES GROOME...	Eastfield House, Andover, Hants.
1903	ELLIS, CHARLES EVELYN	Brookside, Bush Hill Park, Enfield, Middlesex.
1904	ELMES, FREDERICK LANSELL ...	Southwood House, Canterbury, Kent.
1902	EMERY, DOUGLAS WADE	"Cranmere," Cosham, Hants.
1904	ENGLAND, CHARLES	2, Clarence Villas, Avenue Road. Bournemouth, Hants.
1903	EWIN, HENRY HAMILTON	24, High Street, Southend, Essex.
1903	FALKNER, GILBERT EVELYN ..	EllanBrook,Brooklands,nearManchester.
1904	FARMER, RAYMOND THOMAS ...	276, High Street, Chatham, Kent.
1902	FAWKNER, WILLIAM	6 and 8, Great King Street, Macclesfield, Cheshire.
1904	FERREY, GERALD C.	9, Acton Lane, Harlesden, N.W.
1901	FERRIS, GEORGE WILLIAM	7, Clifton Villas, Maida Hill, W.
1903	FIELDING, ARTHUR EDWARD BRUCE	2, Grange Terrace, Broughty Ferry, N.B.
1901	FINCH, GEORGE FREDERICK ...	7, Crouch Hall Road, Crouch End, N.
1904	FINN-KELCEY, HUBERT FRANCIS...	Smeeth, Ashford, Kent.
1903	FITCH, PHILIP...	14, Highbury New Park, N.
1904	FORD, GUY SINGLETON	Braeside, Melton Mowbray, Leicester.
1903	FORD, RICHARD DICKINS LANCELOT	43, Huron Road, Upper Tooting, S.W.
1904	FORD, RICHARD EVELYN	2, Fair View, Swindon, Wilts.
1901	FOULIS, ARCHIBALD KEITH	Roselea, Orchard St., Motherwell, N.B.
1904	FOWLER, FRANK ARCHIBALD ...	6, Alderbrook Road, Clapham, S.W.
1904	FOX, ARTHUR WINGRAVE	The Mythe Cottage, Atherstone, Warwickshire.
1903	FOX, SYDNEY JOSEPH	33, Ashley Road, Crouch Hill, N.
1903	FRANCE, ARTHUR STANLEY... ...	34,Montrell Road,Streatham Hill,Surrey.
1904	FRANCIS, BERNARD	"Bude," Southend-on-Sea, Essex.
1901	GALE, HAROLD JAMES	Benson, Wallingford, Berkshire.
1903	GALE, LEONARD FRANKLIN	Benson, Wallingford, Berkshire.
1904	GARVICE, BASIL KENDALE	Eastridge, Bideford, Devon.
1903	GEORGE, FREDERICK ALBERT ...	2, Sutton Court Road, Chiswick.
1903	GIBSON, FRANK SPEEDING	28, Greenway, Uxbridge, Middlesex.

Enrolled.	STUDENTS.	Address.
1903	GILKS, STEPHEN LANGTON CLOWES	9, Carlton Road, Putney, S.W.
1903	GLOVER, ARTHUR FREDERICK ...	Freshfield, North Hill Road, Headingle Leeds, Yorkshire.
1904	GODFREY-PAYTON, WALTER	The Bridge House, Warwick.
1902	GODSON, RICHARD JOHN	35, Edridge Road, Croydon.
1903	GOLDBERG, JOSEPH	89, Windmill Street, Gravesend.
1904	GOOCH, SYDNEY HILLSHEAD	179, Croydon Road, Anerley, Surrey.
1904	GOODACRE, ERNEST JOHN	Council Offices, Hinckley, Leicester.
1900	GOTELEE, GUY STANLEY...	High Croft, Stanhope Road, Croydon.
1902	GOULSTON, REGINALD JOHN ...	4, Byne Road, Sydenham, S.E.
1902	GOWING, CHARLES TOWLER ...	White House, Sprowston, Norwicl Norfolk.
1903	GREGORY, CHARLES H.	"The Anchorage," New Fillebroo Road, Leytonstone, Essex.
1904	GROVER, LUKE MONTAGU	Surveyor's Office, Aldershot, Hampshir
1903	GRUNDY, ALBERT ERNEST	76, Melbourne Road, Leicester.
1903	GRUNING, EDWARD LOUIS	Waterloo Farm, East Witton, Middlehan R.S.O., Yorkshire.
1904	GUDGEON, HENRY LEISTER	14, Berkeley Road, Tunbridge Well Kent.
1904	GUMBRELL, LEONARD BARTON ...	134, London Road, Kingston-on-Thame
1902	GWYNN, WILLIAM STEWART ...	Springhead, Sandhurst Road, Tunbridg Wells, Kent.
1901	HALL, VERNON MANNING	5, Wedderburn Road, Hampstead, N.W.
1903	HALLAM, FRANK VINCENT	115, Embleton Road, Lewisham, S.E.
1903	HAMLYN, ERIC HENLEY	167, Camden Road, N.W.
1903	HARRINGTON, CHARLES POLAND ...	Langlands, Loats' Road, Clapham Par S.W.
1901	HARRIS, EDWARD CHARLES ...	Hazeldene, Upper Tooting Park, S.W.
1902	HARRISON, HAMILTON PAYNE ...	33, Alexandra Road, Burton-on-Trent.
1902	HART, ALFRED ARMSTRONG ...	"Hampton," Sutherland Grove, Sout fields.
1903	HASLAM, PERCY LOVELL CLARE ...	Ravenswood, Heaton, Bolton, Lancashir
1901	HASLEHUST, ERIC THOMASSET ...	Claverley, Weybridge.
1904	HAYNES, JOHN WYCLIFFE	24, Park Crescent, Brighton, Sussex.
1903	HAYTON, JAMES DAWSON WRAY ...	22, Muswell Rise, Highgate, N.
1903	HAYWARD, ARTHUR LATEWOOD ...	Bull and George Hotel, Ramsgate, Ken
1901	HAYWARD, JOSEPH...	51, Beaconsfield Road, East Croydon.

Enrolled.	STUDENTS.	Address.
1903	HAZARD, CECIL JAMES	"Castle Court," Boscombe, Hampshire.
1904	HEATH, SIDNEY HOWARD	Kingsbridge, Westcombe Park, S.E.
1902	HENDERSON, COLIN EWART ...	The Agricultural College, Aspatria, Cumberland.
1904	HENNELL, CHARLES MURRAY ...	42, Elsham Road, Kensington, W.
1902	HEPWORTH, ERNEST ALFRED ...	391, Waterloo Road, Cheetham Hill, Manchester.
1904	HICKS, ARTHUR LESLIE...	Egham Hill, Egham, Surrey.
1904	HIGGS, KENNETH ALAN	Wickham, Hayward's Heath, Sussex.
1903	HINE, STANLEY GORDON	2, St. Paul's Square, Bedford.
1903	HIPPISLEY, GERALD WILLIAMS ...	New Street, Wells, Somersetshire.
1902	HOBSON, FREDERICK VACHELL ...	79, Coleman Street, E.C.
1904	HODDING, CUTHBERT FRANCIS ...	The Elms, Salisbury, Wilts.
1903	HODSON, LAURENCE SCRIVENER ...	223, Seven Sisters Road, Finsbury, Park, N.
1904	HOLLAND, CECIL BARNARD	Grimsthorpe, Bourne, Lincolnshire.
1902	HOLLIS, RALPH EDMOND	3, Conegra Road, Wycombe, Bucks.
1901	HONEY, ROBERT LLEWELLYN ...	5, Gordon Terrace, Rochester, Kent.
1903	HOOKEY, REGINALD EDWARD ...	14, Hopton Road, Streatham, S.W.
1901	HOOPER, STANLEY	Kenwyn, Stanley Road, Hornchurch, Essex.
1901	HORSFIELD, JOHN NIXON, JUNR....	11, Penrhyn Road, Kingston-on-Thames.
1904	HOSKING, HAROLD ARTHUR	Landrake, St. Germans, Cornwall.
1900	HOWARD, CHARLES STAVELEY ...	Glenavon, Alum Chine, Bournemouth, Hants.
1903	HOWSE, JAMES HAYWARD	9, Glendower Street, Monmouth.
1902	HUGHES, ERNEST WILLIAM	Royal Station Hotel, Bath.
1904	HUGHES, JOHN HENRY	"Glengowan," Shortlands, Kent.
1903	HURCOMB, HAROLD FRANCIS ...	32, Warnborough Road, Oxford.
1904	INGRAM, EDWIN CECIL	Sturminster Newton, Dorsetshire.
1902	JACK, OSWALD GORDON PEARCE...	32, Sunnyside Road, Hornsey Rise, N.
1902	JACKSON, FRANCIS	28, Bedford Road, Hitchin, Herts.

Enrolled.	STUDENTS.	Address.
1904	JEANS, GERALD MARK	King Hall, Milton, Marlborough, Wilts.
1903	JENNINGS, WILLIAM ALFRED ...	75, Victoria Street, Stratford, E.
1904	JONES, ARTHUR DEW	8, Groby Road, Chorlton-cum-Hardy, Manchester.
1902	JONES, CYRIL ROGER	Ireton Lodge, Wolverhampton, Staffordshire.
1902	JONES-WILLIAMS, ALFRED HUGH...	Laughern Hill House, Wickenford, Worcester.
1902	KEAY, RALEIGH WILLIAM McLAREN	Broomstones, Haslemere Road, Crouch End, N.
1900	KELLY, FRANCIS RICHARD	Ballintlea Park, Six Mile Bridge, Co. Clare.
1904	KEMP, ERIC WILLIAM	Histon Vicarage, Cambridge.
1903	KENDZIOR, FRANK FELIX	The Downs, Purley, Surrey.
1904	KENNARD, HORACE BURDOCK ...	St. Margaret's, New Eltham, Kent.
1904	KING, JOHN LEONARD	8, St. Mary's Street, Stamford, Lincolnshire.
1904	KING, SIMMONDS	"Deolale," Maidstone Road, Chatham.
1901	KING, STANLEY BERNARD	29, Radley Road, Abingdon, Berks.
1903	KLOSZ, HUBERT JOHN	37, Platt's Lane, Hampstead, N.W.
1902	LAMBERT, LESLIE HARRISON ...	c/o Messrs. Tyler and Co., 45, Holborn Viaduct, E.C.
1901	LAMBLE, WILLIAM HERBERT ...	9, Leamington Park, North Acton, W.
1903	LAVINGTON, THOMAS HENRY RUSS	Llansilin, Marlborough, Wiltshire.
1902	LE MAY, TRACEY DEAVIN	Denmark House, Tonbridge, Kent.
1904	LIST, STANLEY NORMAN	8, Chepstow Road, Croydon.
1904	LITTLER, ALBERT EDWARD	Knowsley, Prescot, Lancashire.
1904	LLEWELLYN, DAVID	15, Alfred Street, Neath, South Wales.
1903	LOADES, FRANK CHARLES	North Field House, Morpeth, Northumberland.
1904	LOCKE, VICTOR FRANKLIN	48, Queen Street, Wolvehampton, Staffordshire.

rolled.	STUDENTS.	Address.
1903	LORAM, JOHN ANNING	Monkerton Barton, Pinhoe, near Exeter, Devon.
1903	LORD, FREDERICK WILLIAM... ...	63, Heights Lane, Rochdale, Lancashire.
1904	LOVE, HAROLD VINCENT	5, Brandon Road, Southsea, Hants.
1904	LYNAM, HARRY VALENTINE ...	22, West Street, Newcastle, Staffordshire.
1903	LYNE, HARRY...	Estate Office, Brigg, Lancashire.
1902	MCDONALD, JAMES RATCLIFF ...	The Green, Southall, Middlesex.
1902	MCDOUGALL, DOUGLAS ROBERT ...	Perrymead, High Road, Streatham, S.W.
1901	MCSHEEHY, JOHN EDWARD GERARD...	"Donoman," The Drive, Wimbledon, S.W.
1902	MAHOMED, HUMPHRY	152, Harley Street, W.
1902	MAKINS, JAMES VINCENT	174, Great Western Road, Glasgow.
1903	MARKHAM, CHARLES	6, Brookfield Place, Blackrock, Co. Dublin.
1904	MARKHAM, CHRISTOPHER WILLIAM O'LEARY	9, Glenbrook Road, West Hampstead, N.W.
1904	MARTIN, FREDERICK MARK ...	"Romanholme," Pelham Road, Gravesend, Kent.
1904	MARTIN, HARRISON	Elstree, Redhill, Surrey.
1902	MARTIN, MORITZ RICHARD... ...	61, St. Mary's Grove, Chiswick, W.
1902	MATTHEWS, FRANK WILLIAM ...	Richmond House, Gravelly Hill, Erdington, Birmingham, Warwickshire.
1902	MEAGER, FRANKLIN CARLYLE ...	2, Glanmoor Terrace, Swansea, Glamorganshire.
1904	MESSENGER, PHILIP	Hill View, Nightingale Road, Guildford.
1904	MILES, LEONARD PERCY	Netherfields, Shortlands, Kent.
1902	MILLER, EUDO HORACE GARDINER	The Manor House, Old Malden, Surrey.
1904	MILLER, PERCY CLARKE	Cambridge House, Linton, Cambridgeshire.
1904	MILLS, FRANCIS JOSEPH	Highercombe, Spencer Road, Coventry, Warwickshire.
1903	MILLS, ROBERT HENRY	57, London Road, Horsham, Sussex.
1904	MILNES, CHARLTON	57, Hamilton Square, Birkenhead, Lancs.
1902	MINTER, GEORGE ASH	Goodneston Court, Faversham, Kent.
1904	MONTGOMERY, WM. ALEXANDER	Sunnybank, Strandtown, Belfast.

Enrolled.	STUDENTS.	Address.
1903	MOORE, THOMAS HAROLD	Southend House, Tewkesbury, Glou tershire.
1904	MORGAN, ERNEST WILLIAM... ...	22, Hilda Road, East Ham, Essex.
1904	MORRIS, HENRY ROWLAND... ...	The Agricultural College, Aspat Cumberland.
1901	MYOTT, CECIL MCCLELLAN	4a, Clarendon Road, Southsea.
1901	NAYLOR, JOHN STUART...	Edenthorpe, Beckenham, Kent.
1902	NEATE, FRANCIS WEBB...	Speenhamland, Newbury, Berkshire.
1902	NEWHOUSE, EDWARD	Ancliffe Hall, Slyne, near Lancaster.
1901	NOAKES, ARTHUR O.	c/o Messrs. Spark & Co., South Wes Bank Chambers, Woking, Surrey.
1904	NOEL, HAROLD ERNEST...	Ockham, Surrey.
1903	NORMAN, CHARLES FREDERICK ...	291, High Road, Lee, S.E.
1903	NUTTALL, GEORGE PURCELL	Mount Sion House, Manchester R Bury, Lancashire.
1904	NUTTER, HUBERT CHARLES... ...	"Rickwoods," Cowden, Kent.
1903	ORD, HENRY ERRINGTON	Estate Office, Bretton, near Wakel Yorkshire.
1904	OWEN, TREVOR A. R.	37 ,Sandy Road, Seaforth, Liverpoo
1902	OWENS, HARRY BOSTOCK	9, Upper Garth Road, Bangor, narvonshire.
1902	PAGE, BERNARD CULMER	192, Clapham Road, S.W.
1903	PAGE, HERBERT	c/o Messrs. Morton and Crav Barnet, Hertfordshire.
1903	PALMER, CHARLES DRAYTON ...	34, Grove Avenue, Norwich, Norfol

Enrolled.	STUDENTS.	Address.
1903	PARRATT, OSWALD ESTCOTT	"Easkey," 14, Elmbourne Road, Balham, S.W.
1904	PATERSON, EDWARD DOUGLAS ...	The Homestead, Fog Lane, Didsbury, near Manchester.
1904	PATEY, GEORGE HEAD	70, Blenheim Gardens, Willesden Green, N.W.
1904	PATTERSON, CYRIL STANLEY... ...	Cairnsmore, Merrilocks Road, Blundellsands, Lancashire.
1903	PAYNE, ERNEST ALBERT	14, Western Parade, Southsea.
1901	PAYNE, JOHN OSWALD	The New Farm, Bromley, Kent.
1904	PEARCH, DOUGLAS DAVISSON ...	West Hill House, Hastings.
1904	PEMBERTON, BASIL CHARLES ...	Stockers, Rickmansworth, Herts.
1903	PERKINS, SAMUEL BARCLAY... ...	33, Emma Place, East Stonehouse, Devon.
1902	PERRY, CHARLES WILLIAM ...	2, The Cloisters, Gordon Square, W.C.
1902	PETCH, ERNEST SCOTT	Stepney Rise, Scarborough, Yorkshire.
1903	PETER, FRANCIS	Ham Villa, Berkley, Gloucestershire.
1903	PETRIE, ALAN ROY...	Braemoray, Hadley, Barnet, Middlesex.
1901	PICKERSGILL, ARTHUR PERCY ...	88, Mill Hill Road, Acton, W.
1901	POPE, EDWARD THOMAS FREDERIC	Athelstan House, Margate, Kent.
1903	PORTER, EVELYN DE BOCK	c/o Messrs. Crawter, Cheshunt, Herts.
1902	POWER, PERCY TOMES	Southwold, Walton-on-Thames.
1903	PRICE, JOHN ROWLAND	Oak Cottage, Elworth, Sandbach, Cheshire.
1903	PRITCHARD, ANDREW BADEN ...	105, Sotheby Road, Highbury, N.
1903	PRITCHARD, DANIEL PERCY	"Erlesdene," 38, Farm Road, Sparkbrook, Birmingham.
1902	PROCTOR, CLAUDE HORACE	Oakroyd, Burley-in-Wharfedale, Yorkshire.
1903	PUNCHARD, THOMAS WILLIAM ...	Kirkby Lonsdale, Westmoreland.
1902	PURKESS, ARTHUR JAMES	Myndestede, Westlecot Road, Swindon Wiltshire.
1904	PURNELL, ROBERT ALFRED	St. Hilda, London Road, Cheltenham, Gloucestershire.
1904	RAMSAY, SIDNEY HERBERT	The Grange, East Cliff, Herne Bay, Kent.
1903	RATCLIFF, SIDNEY ARTHUR	5, Dawson Place, Bayswater, W.
1900	RAWLENCE, DUNCAN ALFRED ...	Newlands, Salisbury, Wilts.
1902	RAWLENCE, GEORGE NORMAN ...	Newlands, London Road, Salisbury.
1904	RAYMOND, WALTER LESLIE	Hodford Farm, Child's Hill, N.W.

Enrolled.	STUDENTS.	Address.
1904	REEVE, GARNET NORMAN	36, Dingwall Road, Croydon, Surrey.
1903	RELTON, HAROLD STEWART	"Congelow," 2, Brighton Road, Croydon, Surrey.
1902	RENDELL, FRANK	Forde View, Torquay Road, New Abbot, Devon.
1902	RICE, BENJAMIN LOUIS...	Lavington, Clarendon Road, Watf Hertfordshire.
1903	RICHARDSON, GEORGE	Middleton Crescent, Leeds.
1903	RICHARDSON, JOHN STOCKS... ...	East Parade Chambers, Leeds, Y shire.
1903	RICHARDSON, WILFRID SEAGRAM	Warminster, Alexandra Park R Muswell Hill. N.
1903	RIGHTON, EDWARD GRANTHAM ...	39, HighStreet,Evesham,Worcestersh
1902	RIVERS, FRANK WILFRED	"San Remo," Mayford Road, Wa worth Common, S.W.
1904	ROBINSON, FRANCIS WALTER ...	30, Halford Road, Richmond, Surrey
1903	RODWELL, LIONEL HELM	The Agricultural College, Aspa Cumberland.
1902	ROGERS, JOHN RUSSELL	8, High Street, Maldon, Essex.
1903	ROGERS, LEONARD SAMUEL... ...	"Aberglaslyn," 2, Birdhurst R Croydon, Surrey.
1901	ROSS, PERCY HAVERY	37, Mercers Road, Holloway, N.
1904	ROSS, SYDNEY WALTER...	Durham House, St. Albans, Herts.
1903	ROWLAND, HAROLD EVANS	7, Walton Terrace, Aylesbury, Buck hamshire.
1903	ROWLAND, WILLIAM JOHN W. ...	West Milton, Dorset.
1903	ROWLANDS, GEORGE BENNETT ...	Newton, Montgomery.
1903	ROYSTON, HAROLD GEORGE... ...	76, Lincoln Road, East Finchley, N.
1903	RUSSELL, GORDON RUTTER	42, Romola Road, Herne Hill, S.E.
1903	RYDE, JOHN TITCOMB	"The Hangers," Woking, Surrey,
1902	SALTER, WILLIAM	15, Sunnyside Road, Ilford, E.
1902	SALTER, WILLIAM ERIC	Attleborough Hall, Norfolk.
1904	SANDWITH, BERTRAM RALPH ...	17, Blagrave Street, Reading, Berks.
1902	SARSONS, EDWARD RUSSELL ...	92, Trafalgar Road, Moseley, near mingham.

Enrolled.	STUDENTS.	Address.
1901	SCAMMELL, THOMAS EDWARD ...	56, Lower Redland Road, Redland, Bristol.
1903	SCEATS, DOUGLAS BRIANT	12, St. Martin's Mansions, Ullswater Road, West Norwood, S.E.
1903	SHARP, HERBERT FIRTH	Queensbury, near Bradford, Yorkshire.
1904	SHEARBURN, WILLIAM IVERY	"Roseneath," Dorking, Surrey.
1900	SHEPHARD, JOSEPH ERNEST... ...	21, Grange Road, Canonbury, N.
1902	SHERWIN, HENRY EDWARD ...	94, North Side, Wandsworth Common, S.W.
1901	SHIELD, ARTHUR JOHN	14, Gambier Terrace, Hope Street, Liverpool.
1904	SHONE, GEORGE GORDON	Market Chambers, Market Place, Peterborough, Northampton.
1904	SHOVELTON, WALTER	Grove House, Eccles New Road, Manchester.
1901	SKELT, FREDERICK MITCHELL ...	62, Bulwer Road, Leytonstone, N.E.
1903	SMALL, HARRY LIONEL...	Gigley, near Witney, Oxfordshire.
1902	SMALL, LEONARD	Council Offices, Broadstairs, Kent.
1903	SMITH, HERBERT F. G.	21, Portland Street, Southampton, Hampshire.
1902	SMITH, PERCIVAL	2, Coltsgate Hill, Ripon, York.
1901	SMITH, WILLIAM BOULTON	Council Offices, Vestry Hall, Rushden, Northamptonshire.
1901	SPRECKLEY, ROBERT OSCAR ...	3, St. Ethelbert Street, Hereford.
1902	STACEY, MICHAEL BEDE	Chilberton, Doods Road, Reigate, Surrey.
1904	STAMPER, THOMAS HENRY G. ...	122, North Side, Clapham Common, S.W.
1902	STEPHENSON, ROBERT BARNARD...	59, Victoria Road, Darlington, Yorkshire.
1904	STEVENS, HAROLD SMEETON	Weston Favell, Northampton.
1902	STIMSON, DOUGLAS CECIL	"Glendwr," 52, Brixton Hill, S.W.
1904	STOHWASSER, SIDNEY HAROLD ...	103, Priory Road, West Hampstead, N.W.
1902	STURT, LESLIE...	49, Wray Crescent, Tollington Park, N.
1903	SYMES, EDWARD DOUGLAS	The Ferns, Newport Pagnell, Buckinghamshire.
1902	TALBOT, CECIL GORDON	Shelford, 1, Monivea Road, Beckenham, Kent.

Enrolled.	STUDENTS.	Address.
1903	TALLON, JOSEPH FRANCIS	1, Bold Square, Chester.
1902	TATE, HENRY TINDALL	Estate Office, Gargraves, near Leeds Yorkshire.
1902	TAYLOR, ALFRED CECIL	17, St. Mildred's Road, Lee, S.E.
1904	TAYLOR, JOHN HENLEY	Ingleside, Golden Manor, Hanwell Middlesex.
1903	THORNE, HARMAN	Ashcroft, Newport, Barnstaple, Devon.
1902	THYNNE, REGINALD LAMBERT ...	Wilsford Lodge, Routh Road, Wandsworth Common, S.W.
1901	TIDMARSH, CHARLES BAILLIE ...	Surrey Cottage, Combs, Stowmarket Suffolk.
1901	TIVENDALE, THOMAS	1, Highbury Hill, N.
1903	TRODD, JOHN WILLIAM	Bettesworth Road, Ryde, Isle of Wight.
1902	TURNER, FRED	34, Wesley Street, Morley, near Leeds Yorkshire.
1904	TURNER, HAROLD ERNEST	The Gables, Stamford Street, Ashton under-Lyne, Lancashire.
1902	TURNHAM, ROBERT COATES ...	Mayfield, Church End, Finchley, N.
1903	TYSER, GRAFTON LESLIE	6, Hillgrove Road, South Hampstead N.W.
1904	ULLYETT, LESLIE G. S....	"Devonia," Queen's Road, Leytonstone N.E.
1901	VARDY, CHARLES ALFRED S. ...	8, Crauford Rise, Maidenhead, Berkshire
1904	VIGARS, JOHN WILLIAM	Danygarth, Crickhowell, Brecknockshire.
1902	VINING, ERIC LESLIE RANDALL ...	Grove House, Jews Walk, Sydenham S.E.
1903	VIVIAN, JOHN LESLIE HOLMAN ...	93, Bolingbroke Road, Wandsworth Common, S.W.
1904	WALES, JOHN GEORGE C.	23, Baker Street, Portman Square. W.
1904	WALKDEN, WILLIAM	Davenport House, Alderley Edge. Cheshire.

Enrolled.	STUDENTS.	Address.
1903	WARD, HAROLD TOWRY	Laurel Cottage, Watermoor, Cirencester.
1903	WARD, JOHN ELDON	10, Wyresdale Road, Bolton, Lancashire.
1903	WATSON, NOEL B.	Westover, Low Fell, Gateshead, Durham.
1903	WEGUELIN, JOHN DAVID	40, Marlborough Place, Brighton, Sussex.
1904	WELLER, CYRIL G. R....	School House, Crewkerne, Somersetshire.
1904	WESTWORTH, ALFRED ROBERT ...	78, High Street, Sydenham, S.E.
1903	WHITE, RICHARD STANLEY	Cambridge House, near Stonehouse, Gloucestershire.
1902	WICKENDEN, ERNEST	12, Claremont Road, Tunbridge Wells, Kent.
1901	WIGHTMAN, WILLIAM OSBORNE ...	Thornbank, Godstone Road, Purley.
1901	WILKINSON, HUBERT WILLIAM ...	Highfield House, Winchmore Hill, N.
1902	WILKS, GILBERT	1, Tamworth Road, Ashby-de-la-Zouch, Leicestershire.
1902	WILLIAMS, JOSEPH BERTRAM ...	54, Church Street, St. Helen's, Lancashire.
1904	WILLIAMS, WILLIAM ALFRED ...	26, Victoria Road, Oldfield Park, Bath, Somersetshire.
1904	WILLMOTT, ARTHUR STANLEY ...	Lexden, Sutherland Road, Ealing, W.
1902	WILLMOTT, JAMES PERCEVAL ...	Lexden, Sutherland Road, Ealing, W.
1902	WILSON, SIDNEY MARSHALL ...	138, Haverstock Hill, N.W.
1903	WINDER, GEORGE MAURICE... ...	Agricultural College, Downton, Salisbury.
1903	WINFIELD, ERNEST...	21, Albion Street, Aylesbury, Buckinghamshire.
1904	WISE, WILLIAM CHARLES	4, Eastmearn Road, West Dulwich, S.E.
1901	WOOD, HAROLD	Bridge House, Grimsby, Lincolnshire.
1901	WOODBRIDGE, ERNEST EDWARD ...	Cartref, Roxborough Park, Harrow-on-the-Hill.
1901	WOODHAMS, JAMES PERCY	50, Havelock Road, Hastings, Sussex.
1902	WOODHAMS, RICHARD EDWARD...	50, Havelock Road, Hastings, Sussex.
1901	WORRALL, BERTRAM	Crimsworth, Whalley Range, Manchester.
1903	WRAIGHT, GEORGE FREDERICK HAROLD	94, Upper Grosvenor Road, Tunbridge Wells, Kent.
1903	WRIGHT, ERNEST HARRY	1, Frimley Villas, 5, Edge Hill, Plumstead, S.E.
1903	WRIGHT, GEOFFREY LOWNDES ...	Burnt House, Adlington, Lancashire.
1904	WRIGHT, HARRY AUGUSTINE ...	2, Mill Street, Warwick.
1904	WRIGHT, WILLIAM NEWCOME ...	The Briars, Chelmsford Road, Woodford, Essex.
1901	WYKES, HERBERT IVIE	42, Elms Road, Clapham Common, S.W.

Enrolled.	STUDENTS.	Address.
1902	YOUNG, SIDNEY	2, Gordon Terrace, Hamilton Road, Brighton, Sussex.

Total Number of Students, 396.

SUMMARY.

Honorary Members	18
Fellows...	1,883
Professional Associates	1,123
Associates	80
Colonial Fellows	28
Students	396
Total	3,528

NOTE.—To ensure the regular transmission of the Papers and Notices, it is particularly requested that any changes of address be communicated at once to the Secretary.

Members of the Institution who have passed the Fellowship Examination.

** Those to whose names a star is affixed have passed the Fellowship Examination, but have not yet been transferred to the Class.*

1893 ABRAMS, BENJAMIN PERCY.
1901 ADDIE, JOHN HEATHCOTE.
1900 ADDISCOTT, HENRY HUGH.
1888 ADKIN, BENAIAH WHITLEY (*Special Sanitary Science Certificate*, 1893).
1897 ALLEN, PERCY.
1901 ALLSEBROOK, ARTHUR.
1899 AMBLER, SYDNEY WOOD.
1893 AMOS, FRANK (*Crawter Prize*, 1893).
1899 ANGEL, FRANCIS HOUGHTON.
1892 ANSCOMBE, ERNEST.
1903 APPLEBY, JOHN HENRY JAMES.
1895 ARIS, JOHN WHITTON.
1900 ARNO, SAMUEL.
1894 ARNOTT, JOHN.
1897 ASHENDEN, LEONARD THOMAS.
1901 ASSITER, HARRY G. (*Special Sanitary Science Certificate*, 1892).
1904 *AUBREY, WILLIAM BEAUCHAMP.
1904 *AUSTIN, FRANK HOLMAN.
1887 AUSTIN, RICHARD, JUN.
1891 AYLEN, CECIL HUGH.

1899 BADDELEY, BERNARD BERESFORD
1895 BAILEY, LEWIS HEWITT.
1902 *BALDWIN-WISEMAN, WILLIAM RALPH.
1891 BALL, WILLIAM ALFRED.
1903 *BAMFORD, WALTER HERBERT.
1893 BANCROFT, FREDERICK HERBERT
1898 BANKS, FREDK. STUART ANGUS (*Penfold Gold Medal*, 1898).
1904 *BARCLAY, ROBERT HERMAN.
1903 BARKER, CHARLES.
1901 BARKER, FREDERICK GEORGE.
1898 BARKER, GEOFFREY LIONEL.
1891 BARNES, GEORGE FREDERICK.
1899 BARNS, STEPHEN ALLEN.
1901 BASLEY, HAROLD PULLAM.
1900 BAVERSTOCK, HAROLD BRIDGE.
1893 BEADEL, FREDERICK MAURICE.
1889 BEARD, EDWIN THOMAS.
1904 *BEDDALL, HERBERT BOWMAN.
1884 BEDELLS, CHARLES HERBERT.
1902 BEKEN, GEORGE KINGSNORTH.
1895 BELCHER, EDWARD JOHN.
1896 BELL, HERBERT OWEN.
1893 BELLINGHAM, ARCHIBALD TURNER.
1888 BENSON, ROBERT ALAN (*Bracketed Special Prize*, 1884).
1897 *BENTLEY, HAROLD EDWIN.
1901 *BERRY, CHARLES WINDSOR.
1893 BEVEN, SEPTIMUS.
1899 *BICKFORD, JOSEPH GRANT.
1894 BIDWELL, JOHN EVANS.
1898 BIDWELL, PHILIP SHELFORD.
1901 BIGG, LIONEL THURSFIELD.
1902 *BINGHAM, WILLIAM RAPER.
1904 *BINNS, HENRY WILLIAM.
1900 BIRCH, FRANCIS JULIAN LAURENCE.

Members of the Institution who have Passed the Fellowship Examination—continued.

1894 BIRCH, RICHARD ELWYN.
1889 BIRCH, WALTER DE HOGHTON.
1893 BLACKBOURN, HENRY.
1898 *BLACKSHAW, CHARLES.
1898 BLAKE, EDWIN HOLMES (*Special Sanitary Science Certificate*, 1900).
1904 *BLISS, FRAS. GEORGE.
1902 *BLISS, THEODORE STEPHEN.
1901 BLISS, THOMAS CUSHWAY.
1898 *BLOUNT, EDWARD.
1898 BLUNT, MONTAGUE CECIL.
1893 BODY, ARTHUR.
1899 BOOKER, FRANK WILLIAM.
1904 *BOOTH, ERNEST WITTON.
1895 BOOTH, GILBERT WILLIAM.
1891 BOULTING, FREDERICK EDWARD.
1902 BOWDEN, HARRY.
1899 BOWDEN, JOHN FRIENDSHIP (*Institution Prize*, 1891; *Crawter Prize*, 1899).
1904 *BOYTON, BERTRAM ALFRED.
1892 BRACKETT, FREDERICK HENRY.
1899 BRACKETT, WILLIAM NEWBEGIN.
1895 BRADLEY, JAMES WILLIAM.
1903 *BRADSHAW, ARTHUR GEORGE.
1904 *BRADSHAW, HAROLD CLAUD.
1893 BRADY, RALPH HOLLINSHED.
1903 *BRAMLEY, FRANCIS HERBERT.
1895 BREEDS, ARTHUR OWEN.
1904 *BRENT, THOMAS.
1900 *BRIDGEWATER, CLEMENT JOSEPH BENTLEY.
1902 *BRIERLEY, HUGH COLLEY.
1898 BRIGHTON, GEORGE LAWRENCE.
1894 BRINKWORTH, ROBERT EDWIN.
1897 BRINSLEY, HERBERT GEORGE WILLIAM.
1901 *BROOKER, FREDERICK GEORGE.
1896 BROOKS, JOHN MCMULLEN.
1896 BROOKS, PHILIP FULLER.
1893 BROWN, ALEXANDER BURNETT.
1901 BROWN, ARTHUR ALLEN.
1893 BROWN, ARTHUR MACDONALD (*Driver Prize*, 1889).
1902 BROWN, FREDERICK.
1894 BROWN, GEORGE TURVILLE.
1903 BROWN, WILLIAM HENRY.
1901 *BRUTON, BASIL VASSAR.
1901 *BRUZAUD, GEORGE JOSEPH.
1887 BUCKLAND, ALFRED VIRGOE.
1893 BUCKLAND, SIDNEY CRAWFORD.
1900 BURGESS, HENRY HERBERT PHILIP.
1904 *BURNETT, JOHN.
1901 BURR, HARRY.
1904 BURROUGHES, CHAS. FITZPATRICK.
1887 BURROWS, ALFRED JOHN.
1901 *BURROWS, FRANK HERBERT.
1901 BURTENSHAW, ALBERT KING.
1896 BURTON, AMOS, JUN.
1901 BURTON, REGINALD ROBERT.
1891 BUSHELL, HENRY.
1899 BUTLER, ALBERT ERNEST.
1899 BUTLER, CHARLES.

1903 *CABLE, CHARLES VINCENT.
1896 CAMPBELL, HUGH BRUCE.
1903 *CANCH, THOMAS RICHARD.
1904 *CANDY, WALTER EMMANUEL.
1898 CARNELL, SYDNEY GEORGE.
1898 CARPMAEL, HAROLD.
1901 CARR, CUTHBERT ELLISON.
1900 *CARR, HERBERT FRANCIS.
1898 CARTWRIGHT, ALFRED STOTT.
1904 *CATON, THOMAS L.
1898 CHAMBERLAIN, GEORGE ARTHUR RADDON.
1895 CHAMBERS, THEODORE GERVASE (*Penfold Gold Medal*, 1895).
1904 *CHAMPERNOWNE, AMYAS W.
1904 *CHANDLER, JOHN.
1901 CHART, CHRISTOPHER.
1901 CHATTELL, FRANCIS LORIOT.

Members of the Institution who have Passed the Fellowship Examination—continued.

1900 CHESTERTON, FRANK SIDNEY.
1902 *CHESTERTON, SIDNEY JAMES.
1900 CHICHESTER, RICHARD HERBERT.
1904 *CHILWELL, CHARLES VYVYAN.
1904 *CLARK, HUDSON OWEN.
1901 *CLARK, NATHANIEL, JUN.
1901 CLARKE, ERNEST SEYMOUR.
1902 *CLARKE, LEONARD EUSTACE.
1898 CLARKSON, WILLIAM, JUN.
1894 COALES, HERBERT GEORGE.
1903 *COBB, HENRY, FREDERICK.
1902 *COBB, ROBERT.
1893 COBHAM, GEORGE WILLIAM (*Special Prize*, 1890; *Crawter Prize*, 1890).
1901 COCHRANE, WILLIAM JAMES.
1903 *COCKS, JOHN, FREDERICK.
1903 *COLE, HERBERT COVINGTON.
1900 *COLE, JAMES THOMSON.
1904 *COLES, JAMES HATCH.
1898 COLLINS HORACE.
1902 *COOK, CECIL NEWTON.
1901 *COOK, EDWARD ARTHUR.
1903 *COOKE-YARBOROUGH, ORFEUR FREDERIC.
1902 COOPE, SAMUEL.
1902 COOPER, ARTHUR JOHN.
1902 *COOPER, GEORGE AUGUSTUS.
1904 *COOPER, HARRY THOMAS.
1894 COPE, HENRY JAMES.
1899 *COPE, WILLIAM GEORGE.
1902 *CORBETT, JOHN ROOKE.
1892 CORDEROY, ATHELSTANE.
1903 CORY, EDWARD JOHN.
1898 COTTERELL, ALBERT PLAYER ISAAC.
1899 *COWIN, NORRIS TYNWALD.
1900 COWPER, WILLIAM SHAPLAND.
1897 COX, WALTER THEODORE.
1904 *CRABTREE, PERCY.
1902 *CRAGG, GEORGE EDWIN.
1903 CRAMPTON, ARTHUR WESLEY.
1899 CRESWELL, WILLIAM THOMAS.
1893 CRIER, JOHN THOMAS.
1899 CRONK, CHARLES TYLEE.
1895 CROSS, ARNOLD CHARLES MARTIN.
1903 CROSS, ARTHUR GEORGE.
1904 CROUCH, JAMES LEONARD.
1898 CROWTHER, KESTON NELSON.
1901 *CULLEN, FELIX VICTOR.
1899 CULVERHOUSE, CECIL GOLDAR FEARN.
1900 CUTLER, GEORGE ALFRED.

1903 *DALGLIESH, CHRISTOPHER.
1899 DANGERFIELD, THOMAS SAMUEL.
1903 *DANIELL, FREDERICK STANLEY.
1897 *DANIEL, HENRY WILKINSON (*Institution Prize*, 1896).
1903 DANN, HENRY, JUN.
1890 DARCH, JOHN.
1901 DAUBNEY, CHARLES.
1892 DAVEY, HENRY THOMAS.
1903 *DAVID, LEWIS WOOLLEY.
1903 *DAVIDGE, WILLIAM ROBERT.
1895 DAVIES, CYRIL FROODVALE (*Crawter Prize*, 1895).
1894 DAVIES, DAVID THOMAS.
1902 *DAVIES, JOHN WILLIAM SATTERLEY HUMPHREYS.
1900 DAWSON, GEORGE CROSBIE.
1886 DAY, WILLIAM, JUN.
1893 DEBENHAM, FRANK BRIDGEWATER.
1894 DEBENHAM, FREDERIC KERSEY.
1893 DEBENHAM, HORACE BENTLEY.
1902 DELVES, ROBERT HARVEY ADDINGTON.
1890 DENDY, WILLIAM COOPER (*Special Prize*, 1889).
1903 *DENSHAM, JOHN BOONE.
1898 DENTON, WILLIAM.
1885 DICKSON, THOMAS ARTHUR.

Members of the Institution who have Passed the Fellowship Examination—continued.

1903 *DINWIDDY, CONRAD HUGH.
1896 DINWIDDY, DONALD.
1891 DONE, JOHN JAMES (*Driver Prize*, 1887).
1904 *DONNE, CYRIL HENRY.
1903 DRAPER, EDWIN MAXWELL.
1903 DRIVER, ARTHUR CHARLES.
1903 *DRIVER, JOHN ROBERT FARRANT.
1888 DREW, HENRY ALBAN.
1904 *DROWER, EDMUND GILBERT.
1904 *DUCHESNE, MARTIN C.
1892 DUDLEY, EDGAR.
1900 DUNLOP, DUGDALE OAKELEY.
1901 DUNSTALL, HERBERT HENRY.
1904 DYER, FREDERICK BURFIELD.

1901 *EARLE, JOHN WILFRID.
1895 EASON, EDWARD WILLIAM (*Institution Prize*, 1893).
1897 EASTER, WILLIAM (*Driver Prize*, 1896; *Penfold Silver Medal*, 1896).
1894 EDMONDS, JOHN.
1896 EGGINTON, DENYS.
1903 *ELGAR, CHARLES JOHN.
1903 *ELLIOTT, ARNOLD.
1895 ELLIS, ALBERT EDWARD.
1901 ELLIS, ALFRED CAVE.
1900 ELLIS, ARNOLD ROBERTSON.
1889 ELLIS, FRANCIS.
1890 ELLIS, HERBERT MOATES.
1890 ELLIS, RALPH STAPLES.
1903 *ELLIS, RUPERT LUMLEY.
1904 ELPHICK, GEORGE PELHAM.
1898 EVE, CHARLES GERALD (*Bracketed Crawter Prize*, 1898).
1887 EVE, HERBERT TRUSTRAM.
1899 EVE, WILLIAM HAROLD.
1899 EVERINGTON, JOHN.
1902 *EVERY-CLAYTON, REGINALD ARTHUR ERIC.
1895 EVES, FRANCIS GEORGE BERTRAM.
1890 EVES, WILLIAM LIONEL.
1901 EWING, GUY BEAUMONT.

1904 *FAGG, EDWIN WILLIAM.
1901 FAIR, ARTHUR EDWARD.
1898 FARMER, HUGH CECIL.
1895 FENN, ANDREW THOMAS CRANAGE.
1895 FIELDS-CLARKE, GEORGE THOMAS.
1894 FINN, FRED, JUN.
1894 FINN, HERBERT ARCHIBALD (*Special Prize*, 1891).
1901 *FISHER, ROBERT.
1894 FITT, HARRY CHARLES.
1899 FLETCHER, BANISTER FLIGHT.
1897 FLETCHER, HERBERT PHILLIPS.
1895 FORD, SOLOMON.
1897 *FOSTER, EDWARD CHARLES.
1890 FOSTER, FRANK (*Special Sanitary Science Certificate*, 1892)
1894 FOSTER, JAMES HERBERT FURMEDGE.
1902 *FOWLER, ARTHUR CHARLES STANLEY.
1904 *FOWLER, CYRIL JAMES.
1902 FOX, ERNEST.
1899 FOX, FREDERICK RUSSELL.
1903 FOX, WILLIAM.
1893 FRANKLIN, BENJAMIN BELGROVE.
1897 FRASER, THOMAS SMELLIE.
1894 FRASER, WILLIAM.
1902 *FREEMAN, REGINALD FRANK LYNE.
1904 *FRENCH, CECIL GEORGE.
1898 FRY, JOSEPH HARRY.
1904 *FUNNELL, HORACE FREDERICK.
1888 FURBER, PERCY NORMAN.
1898 FURMEDGE, JOHN HARRIS.

1903 *GAHAN, ROBERT BERESFORD.
1901 GALE, HARRY.

Members of the Institution who have Passed the Fellowship Examination—continued.

1899 GARDINER, ROBERT STRACHAN.
1894 GARDNER, GILBERT.
1897 GARNER, JOHN STANLEY.
1892 *GARRARD, ARTHUR NORMAN.
1901 GATE, HENRY ARTHUR ARMITAGE.
1901 *GENGE, WILLIAM POPE, JUN.
1895 GERMAN, GEORGE, JUN. (*Driver Prize*, 1892).
1901 GIBBON, EDWARD ACTON.
1892 GIDDY, OSMAN HORTON.
1904 *GIMSON, ALLEN.
1904 *GLEED, PERCIVAL FRANCIS.
1898 GLOVER, HENRY ALEXANDER.
1900 GOADBY, HOWARD
1899 GOLDSMITH, DOUGLAS FLEET.
1903 *GOODBODY, FREDERICK ALLEN S.
1904 *GOODCHILD, RALPH HARRY.
1900 *GOODMAN, ALFRED.
1902 GORDON, ALEXANDER.
1897 GOULDING, ARTHUR.
1904 *GRAY, HORACE NORMAN.
1892 GREEN, ALEXANDER ERNEST.
1897 GREEN, EDMUND HORACE.
1897 GREEN, FREDERICK ALGERNON (*Penfold Gold Medal*, 1897).
1896 GREGSON, GEORGE ERNEST.
1896 GRIFFIN, ALFRED.
1904 *GRIFFITHS, OWEN.
1900 GRIPPER, JOSEPH EDWARD.
1892 GROVER, ARTHUR.
1895 GROVER, PHILIP GORDON.
1899 GUNTER, JAMES.

1891 HADLEY, FRANK.
1894 HAIGH, THOMAS FREDERICK.
1897 HALL, JOHN HERBERT.
1891 HALL, WILLIAM TIMOTHY (*Institution Prize*, 1884).
1890 HALL-JONES, FREDERICK.
1894 HAMPTON, GEORGE FREDERICK WILLIAM.
1901 *HANCOCK, HENRY SYDNEY, JUN.
1888 HANSELL, REGINALD GODDARD (*Special Sanitary Science Certificate*, 1893).
1897 HARRISON, CHARLES.
1903 HARRISON, FREDERICK.
1896 HARRISON, GEORGE JOHN ROBERTSON (*Special Prize*, 1894).
1899 HARRISON, JOHN EDWARD.
1901 *HARTLEY, TOM PERCY.
1890 HASLAM, DRYLAND, JUN.
1886 HASLUCK, LANCELOT GERALD
1901 *HASSETT, REGINALD CHARLES
1901 HAWKINS, LANCELOT GOULDER
1892 HAYWARD, FREDERICK GEORGE.
1900 HAYWARD, THOS. WILLIAM ALFRED.
1904 *HAZLEDINE, JOHN TURNER C.
1891 HEAD, JOHN GEORGE (*Crawter Prize*, 1891).
1900 HEALING, OSWALD JUDD.
1897 HEASLER, HOLLAND CHARLES.
1903 HEATH, HENRY CUBITT.
1903 *HEBDEN, FRANCIS RADCLIFFE.
1902 HEMPHILL, CHARLES GORDON CATHCART.
1904 *HENNIKER, FREDERICK SIBERT.
1896 HERN, SAMUEL.
1904 *HESKETT, WILLIAM DONALD.
1895 HEWARD, ERNEST JAMES.
1903 *HEWETT, RICHARD.
1902 HIBBERT, JOSEPH VICTOR.
1902 *HIDER, SYDNEY WILLIAM.
1891 HIGGINS, GEORGE.
1902 *HINCHSLIFF, EDWARD ROBERT.
1901 HINDMARSH, RALPH FREDERICK.
1900 *HINKS, HENRY.
1895 HOLIDAY, PERCY CAVE.
1899 HOLL, MACKINTOSH MELENG.
1897 HOLLIS, WALTER DAWSON.
1902 *HOLMES, MONTAGU PRICE.
1897 HOMAN, HUBERT FRANKLIN.

Members of the Institution who have Passed the Fellowship Examination—continued.

1904 *HOME, PHILIP WOOLLATT.
1902 HOOD, HERBERT CHARLES.
1896 HOOD, WALTER RICHARD.
1900 HOOD, THOMAS (*Special Forestry Certificate*, 1901; *Daniel Watney Prize*, 1901).
1901 HOOLEY, ARTHUR JOHN.
1901 *HOOPER, ALFRED EGBERT.
1895 HOOPER, CECIL HENRY.
1897 HOOPER, EDGAR WILFRED.
1900 HOPE, ARTHUR ERNEST.
1902 *HOPKINS, PERCY RAYNES.
1883 HORNE, WILLIAM EDGAR.
1903 *HOSEGOOD, ANDREW WEBBER. (*Bracketed Crawter Prize*, 1903).
1902 HOSKINS, MARCUS.
1899 HOUGHTON, THOMAS MARCUS.
1904 *HOW, HERBERT.
1904 *HOWARD, EDMUND.
1901 HOWES, ARTHUR BURNABY. (*Special Sanitary Science Certificate*, 1901).
1902 *HOWLAND, ARTHUR FRANK.
1901 *HOWLAND, GEORGE.
1903 *HUBBLE, LLOYD UNSWORTH.
1904 HUDSON, ALBERT WILLIAM.
1901 HUNT, GEORGE WHITAKER.

1903 *INGRAM, CECIL WALTER.
1897 ISTED, SAMUEL EVELAND.

1904 *JACKSON, RICHARD STEPHENS.
1904 *JAMES, HERBERT HAROLD.
1897 JARMAIN, WILLIAM (*Institution Prize*, 1894).
1895 JARMAN, FRANK WILMOTT.
1894 JEFFREE, SYDNEY.
1897 JENKIN, ARTHUR PEARSE.
1903 JENKINS, RICHARD JAMES.
1895 JENKINSON, JOHN.
1898 JENKINSON, WILLIAM ERIC LEIGH.
1897 JENNER, WILLIAM.
1900 JENNINGS, FITZ-LAURENCE PERCIVAL DUDLEY.
1894 JOHNSON, BERNARD MARR.
1884 JOHNSON, HENRY.
1894 JOHNSTON, WALTER HENRY.
1900 JOHNSTON, REGINALD.
1903 JOHNSTONE, AUGUSTUS FREDERIC.
1901 *JONAS, HAROLD DRIVER.
1904 *JONAS, ROBERT COLLIER.
1889 JONAS, HARRY MARSHALL (*Institution Prize*, 1887).
1904 *JONES, JOHN RICE.
1903 *JONES, ARTHUR BAYLY.
1898 JONES, ERNEST JOEL.
1886 JONES, HENRY ARTHUR (*Special Sanitary Science Certificate*, 1892).
1904 *JULL, ROBERT CHARLES.

1904 *KEEP, WILLIAM HENRY.
1902 *KELLY, ARTHUR RALPH.
1901 KELLY, JOHN GEORGE.
1892 KEMP-SMITH, JAMES FREDERICK.
1899 KERR, JOHN MURRAY.
1898 KERRUISH, WILLIAM MALTBY.
1904 *KIBBLEWHITE, HENRY JAS. T.
1903 KILLICK, ANTHONY EDWARD.
1888 KING, ALFRED.
1897 KINGSFORD, PERCY HAMILTON.
1900 KIRBY, EDMUND FRANCIS JOSEPH.
1900 KIRK, JOHN WRIGHT.
1904 *KNIBB, FREDERICK CHAS.
1896 KNIGHT, GEORGE EDWARD.
1904 *KNOWLES, GEORGE POTTER (*Galsworthy Prize*, 1904).

1897 LAKE, CUTHBERT JOSEPH.
1903 *LAKE, RALPH JULIAN.
1896 LAKIN-SMITH, ERNEST.

Members of the Institution who have Passed the Fellowship Examination—continued.

1904 *LAMBERT, GEORGE ARROW.
1889 LAMBERT, GODFREY CHARLES.
1898 *LAMPRILL, WILLIAM THOMAS.
1895 LANCASTER, JOHN ROY.
1902 *LANGRIDGE, WALTER FREDERICK.
1900 LATHAM, ALBERT TUMMONS.
1893 *LAWLEY, FREDERICK WILLIAM
1903 *LAWLEY, GEORGE FRANK.
1903 *LAWRENCE, CHARLES PHILLIPS.
1903 *LAWRENCE, JOHN.
1904 *LEANING, AUBREY RUPERT SIDNEY.
1893 LEANING, HENRY JOHN.
1895 LEANING, WILLIAM ARTHUR.
1894 LEATHER, GEORGE HERBERT.
1900 LEATHER, WILLIAM BEAUMONT.
1897 LEE, EDWARD ERNEST ARTHUR.
1893 LEE, JOHN WILFRID.
1895 LEEDER, ERNEST HOLTHAM.
1902 LEE-NORMAN, ALEXANDER HENRY.
1903 *LEES, FRANK ARTHUR.
1903 *LESLIE, HARRY GEORGE.
1903 *LEWIS, JOHN.
1904 *LICKIS, LEONARD.
1902 *LISNEY, HARRY.
1899 LLOYD, DONALD.
1903 LOFTHOUSE, ALBERT WILSON.
1900 LOMAS, ALBERT DANIEL.
1895 LONGSDON, ERNEST MOREWOOD.
1902 *LOVELESS, ARTHUR WILLIAM HENRY.
1897 LUCAS, JOHN ARCHIBALD.
1904 *LUFFINGHAM, WILLIAM JOHN.
1900 LUKER, DYNELEY.
1904 *LUSH, WILLIAM VAWDREY.
1902 LYNES, HUMPHREY DOD.
1904 *LYON, MICHAEL LEWIS.

1895 MCCARTHY, HENRY ROBERT.
1895 MACNICOLL, DOUGLAS HENRY.
1904 *MAGER, SYDNEY.
1904 *MAGGS, LEONARD.
1891 MANN, ROBERT BAGSHAW.
1904 *MARKS, THOMAS EDWARD.
1900 MARRIOTT, ARTHUR SUTCLIFFE.
1902 *MARTIN, ALEXANDER WILLIAM.
1897 MARTIN, ALFRED JOHN.
1895 MARTIN, HEBER GAMBLING (*Institution Prize*, 1888).
1901 *MARTIN, JOHN PATTINSON.
1895 MARTIN, SAMUEL.
1892 MARTIN, THOMAS (*Special Forestry Certificate*, 1893).
1904 *MASON, HERBERT WALTER.
1888 MASSIE, FRANK.
1901 MATHER, JAMES.
1895 MATHEWS, LOUIS OSLER.
1900 MATTHEWS, DOUGLAS SAMUEL.
1903 *MAW, PERCIVAL TRENTHAM (*Penfold Gold Medal*, 1903; *Bracketed Crawter Prize*, 1903; *Special Forestry Certificate*, 1904).
1902 MAXWELL, DAVID BENJAMIN.
1889 MAXWELL, FRANCIS WILLIAM.
1898 MAXWELL, JOSEPH ARCHIBALD.
1901 MEABY, THOMAS JAMES.
1902 *MEACHER, SYDNEY GEORGE.
1893 MELLENFIELD, JAMES HENRY.
1890 MELROSE, FRANK (*Special Sanitary Science Certificate*, 1893).
1897 MERCER, CHARLES EDWARD.
1903 MERRICK, FREDERICK WALTER.
1892 MERRY, ARTHUR WALKER (*Institution Prize*, 1890).
1894 MESSENGER, HENRY.
1884 MICHELMORE, ALFRED (*Special Forestry Certificate*, 1890).
1896 MILLER, JOHN EZRA.
1903 MILLS, ARTHUR ERNEST.
1903 *MILLS, DANIEL.
1892 MITCHELL, GEORGE SHARMAN.

Members of the Institution who have Passed the Fellowship Examination—continued.

1884 MIXER, EDWARD.
1901 *MOLYNEUX, FRANK EUSTACE.
1903 *MOODY, HERBERT JOHN.
1885 MOORE, HAROLD EDWARD.
1904 *MOORE, ERNEST LLEWELLYN.
1899 *MORRIS, ARTHUR.
1894 MORRIS, RICHARD PERCIVAL.
1899 MORRIS, WILLIAM HENRY.
1902 *MORRIS-DAVIES, JAMES GEORGE.
1904 *MORRISON, IVOR C.
1891 MOULD, GRAHAM HARLEY.
1892 MÜLLER, JOHN JOSEPH.
1900 *MUMBY, ELVIN FOWLER.

1903 *NEAME, FREDERICK IVO.
1904 NEILL, JAMES NEILL.
1899 NESBITT, JOHN OSCAR.
1894 NEWMAN, SAMUEL FRANK.
1904 *NEWNHAM, FRANK GEORGE (*Crawter Prize*, 1904).
1898 NEWTON, EDWIN BENNETT BRIERLEY.
1900 NOCKOLDS, ALFRED GEORGE.
1895 *NOCKOLDS, MARTIN CHARLES HUBERT.
1883 NORTH, GEORGE FREDERIC.
1904 *NOTLEY, LESLIE RICHARD.
1897 NUTTALL, HERBERT.
1904 *NUTTER, JOHN.

1894 OAKLEY, CHRISTOPHER PERCIVAL.
1891 OAKLEY, JOHN HUBERT
1900 O'BRIEN, DONOUGH RICHARD.
1892 OGDEN, MICHAEL GUY.
1899 OGILVIE, ROBERT MATHEWSON.
1899 *OLDNALL, ROGER WILLIAM.
1902 *O'REILLY, HENRY J.
1901 *ORWIN, CHARLES STEWART.
1898 OSENTON, CHARLES.
1892 OSENTON, GEORGE.
1904 *OSMOND-SMITH, FRANCIS H. G. (*Special Forestry Certificate*, 1904).

1896 PAGE, STANLEY HATCH (*Special Sanitary Science Certificate*, 1900).
1895 PAIN, GEORGE LLOYD.
1885 PAIN, JAMES.
1899 *PAIN, WILLIAM HENRY.
1892 PALAMOUNTAIN, JOSEPH WM.
1904 PALMER, FREDERICK CHARLES RICHARD.
1901 PALMER, WILLIAM EDWARD KING.
1903 *PARKER, FREDERIC WILLIAM.
1904 *PARKHOUSE, SAMUEL.
1902 *PARNWELL, SYDNEY ARTHUR.
1891 PARRIS, CHARLES JOHN.
1904 *PARRY, ALBERT EDWARD.
1887 PARRY, RICHARD.
1900 PARRY, RICHARD FREDERICK.
1894 PARTRIDGE, EDWARD JOHN (*Driver Prize*, 1890; *Penfold Gold Medal*, 1894; *and Crawter Prize*, 1894).
1898 PATCH, SHIRLEY HUTCHINGS.
1903 *PATON, DAVID LLEWELLYN.
1886 PAULL, ALAN.
1902 PEACE, JOHN CHALMERS.
1897 PEARCE, FRED. W.
1898 PEARSE, OCTAVIUS BURROUGHES.
1904 *PEARSE, THOMAS WILLIAM.
1896 PEARSON, HARRY JOHN.
1895 PEARSON, HOWARD.
1898 *PEEBLES, PHILIP.
1891 PERKINS, WALTER FRANK (*Special Prize*, 1886).
1903 *PERKS, HUGH EARL.
1902 *PETCH, JOHN STONEHOUSE.
1904 *PETERS, GEORGE F. J.
1884 PETO, JAMES WINDER.
1902 PETTER, ALBERT EDWARD.
1904 *PHILPOT, CLIFFORD NEEDHAM.
1885 PILDITCH, PHILIP EDWARD (*Special Sanitary Science Certificate*, 1890).
1900 PINDER, RICHMOND.

Members of the Institution who have Passed the Fellowship Examination—continued.

1900 PINEGER, JAMES REGINALD (*Crawter Prize*, 1900).
1897 PINNEY, FREDERICK WYLDBORE DIGBY.
1902 *PINSENT, FRANCIS WINGFIELD HOMFRAY.
1902 *PINSON, GILBERT.
1904 *PORTER, SYDNEY LAWRANCE.
1894 POTTER, HERBERT GEORGE.
1902 *POTTIER, GEORGE LOUIS.
1895 POWELL, CHARLES REGINALD EVERNDEN.
1896 PRALL, HERBERT ALEXANDER.
1901 *PRATT, FRANK PERCY.
1892 PRESTON, SAMUEL DAVID.
1898 *PRICE, CAPEL HEREWARD.
1894 PRICE, RICHARD ARNOLD.
1896 PRITCHARD, HERBERT ALFRED.
1903 PROTHEROE, ALFRED ERNEST.
1900 PUGH-JONES, DAVID.
1891 PUNCHARD, FREDERICK BURT.
1896 PURVIS, CHARLES JAMES.
1903 PYLE, BENJAMIN THOMAS RICE.

1901 RAFFETY, HAROLD VEZEY.
1896 RAFFETY, HERBERT WILLIAM (*Special Prize*, 1892).
1903 *RANSOM, THOMAS REGINALD.
1904 *READ, FRANCIS CHARLES J.
1899 *REED, RICHARD GEORGE GORDON.
1901 *REEVE, DOUGLAS WILLIAM.
1897 REFFELL, CHARLES ARTHUR (*Special Sanitary Science Certificate*, 1901).
1898 REID, ARTHUR FLETCHER.
1896 RENTON, GEORGE.
1899 RICHARDSON, ARTHUR BAYLIFFE.
1892 RICHARDSON, OLIVER ARCHER (*Crawter Prize*, 1892).
1904 *RIDDETT, MAURICE CHARLES.
1900 RIDLEY, PERCY EDWARD.
1904 *RIPPENGAL, ARTHUR HENRY.
1900 *ROBBINS, WALTER FRANCIS.
1901 *ROBERTS, JOHN.
1894 ROBINS, PHILIP SEYMOUR.
1892 ROBINSON, HENRY HERBERT.
1898 ROBINSON, THEODORE RICHARD.
1903 RODDICK, ANDREW.
1897 ROGERS, HORACE MORDAUNT.
1884 ROLLESTON, WILLIAM GUSTAVUS STANHOPE (*Institution Prize*, 1883).
1887 ROODS, ALFRED (*Driver Prize*, 1886).
1898 ROOK, JOSEPH TAYLOR (*Special Prize*, 1896).
1898 ROWLAND, JOSEPH SAMUEL.
1903 *ROWLANDSON, SAMUEL MESSITER.
1904 *RUDDLE, GEORGE WILLIAM.
1889 RUNDLE, EDWARD COLLINS.
1903 *RUTLEY, ARTHUR DENNETT.

1889 SADLER, GEORGE WILLIAM, JUN.
1903 *SAINSBURY, WILLIAM CHARLES.
1904 *SALMON, JOSEPH HAROLD.
1900 *SANDAY, WILLIAM HENRY.
1902 *SANDELL, STANLEY LUNAU.
1903 SANDERS, INGALTON.
1896 SANDFORD, CHARLES SIDNEY.
1903 *SANDS, HUBERT COVELL (*Special Sanitary Science Certificate*, 1904).
1891 SAUNDERS, CHARLES HERBERT.
1901 *SAUNDERS, EDGAR WALTER.
1899 SAUNDERS, SAMUEL BROWN.
1892 SAVILL, EDWIN.
1904 SAWYER, JOHN ASHTON (*Daniel Watney Second Prize*, 1904; *Special Forestry Certificate*, 1904).
1899 SCOTT, ARCHIBALD LACY.
1904 *SCOTT, JOHN.
1900 SCOTT-SMITH, ARTHUR COURTENAY.
1900 *SCRIVENER, JOHN CHARLES.

Members of the Institution who have Passed the Fellowship Examination—continued.

1894 SCRUBY, WILLIAM THOMAS.
1899 SECKER, JOHN EUSTACE.
1899 SEDGWICK, ALFRED SYDNEY EDWARD.
1899 SEEL, ROBERT HAROLD.
1897 SEXTON, GEORGE ALEXANDER.
1898 SHEARBURN, HARRY.
1899 *SHELDON, HAROLD.
1900 SHUFFLEBOTHAM, JOHN HENRY.
1903 SILCOCK, EDWARD JOHN.
1883 SILCOCK, THOMAS BALL.
1898 *SKINGLE, ALFRED CHARLES.
1897 SKIPPER, HENRY HERBERT.
1898 SKRIMSHIRE, SAMUEL.
1899 SKUES, CHARLES AYRE MACKENZIE.
1892 SLATER, CHARLES FREDERICK.
1898 SLY, JOSEPH TOWNSON.
1900 SLY, WILLIAM.
1904 *SMALLEY, WILLIAM.
1903 *SMITH ARTHUR KITSON.
1897 SMITH, CHARLES GORDON.
1904 *SMITH, CHARLES PHILIP.
1895 SMITH, FRANK BRAYBROOKE.
1889 SMITH, FRANK WILLIAM (*Driver Prize*, 1888).
1889 *SMITH, GEORGE HENRY.
1903 *SMITH, HUBERT GEORGE.
1904 *SMITH, HUGH.
1900 SMITH, JOHN AMBROSE.
1994 *SMITH, QUENTIN CULLEN.
1904 *SMITH, STANLEY ADDISON.
1899 SMITH, SYDNEY ARTHUR (*Driver Prize*, 1897; *Penfold Silver Medal*, 1897; *Penfold Gold Medal*, 1899).
1884 SMITH, WILLIAM.
1903 *SOPER, HAROLD.
1900 SOUTHORN, CHARLES HERBERT.
1896 SOWELS, WILLIAM CLOWES.
1904 *SPALDING, FRANK EWART.
1898 STANDEN, ARTHUR CARNEGIE.
1901 STANFORD, GEORGE.
1901 *STANTON, FREDERICK WILLIAM SCHULTHEISS.
1894 STAPLEDON, ERNEST ALLEN.
1903 *STEAD, EDWARD JOHN.
1903 STENNING, OSWALD FRANCIS
1902 *STEPHENS, JOHN KYLE.
1904 *STEWART, HARRY S.
1901 STEWART, GEORGE PAKENHAM.
1901 STEWART, HENRY PAKENHAM.
1898 STEWART, SAMUEL PARR.
1900 *STIMSON, EDWARD FREDERICK.
1899 *STIMSON, HERBERT PERCY.
1901 *STOKES, HUGH CHARLES.
1904 *STONE, FREDERIC.
1903 *STONE, CYRIL FRANK.
1902 *STONEHAM, EDWARD RUSSELL.
1904 *STOOKE, JOHN E. H.
1898 STROUTS, LEWIS HERBERT.
1904 *STRUTT, JOHN JAMES.
1901 STURT, CHARLES EDWIN.
1903 SUTCLIFFE, JAMES HENRY.
1899 SUTTON, FREDERICK STANLEY.
1898 *SWANWICK, BRUCE.
1904 *SYMMONS, PERCY JAMES.

1904 *TALLBOY, FREDERICK JAMES.
1896 TALLENT, EDWIN JAMES.
1903 *TANNER, RUDOLPH.
1897 *TATE, JOSEPH GEORGE.
1904 *TAYLOR, EDWIN THURLOW.
1904 *TAYLOR, JOHN JAMES.
1895 TAYLOR, HARRY WILLIAM.
1903 *TAYLOR, WILLIAM HENRY.
1899 TAYLOR, THOS. WILLIAM HARRIS.
1894 TEE, SAMUEL CLIFFORD.
1894 TEMPLE, FREDERICK WILSON.
1902 *TERRY, ARTHUR ELLIOTT.
1900 *TERRY, FRANCIS WILLIAM
1898 THEAKSTON, WILLIAM PEASE (*Bracketed Crawter Prize*, 1898).
1898 THEOBALD, JOHN MEDOWS.

Members of the Institution who have passed the Fellowship Examination—continued.

1900 THOMAS, CHARLES JOHN HOWELL (*Driver Prize*, 1898; *Penfold Silver Medal*, 1898; *Penfold Gold Medal*, 1900).

1901 THOMAS, ILLTYD.

1896 *THOMPSON, ROLAND O'BRIEN.

1902 THORP, ROBERT HAYTON.

1895 THRING, DOUGLAS THEODORE.

1900 THURGOOD, ALBERT EDWARD.

1904 *TIMBRELL, ALAN.

1904 *TOMLIN, WILLIAM, JUN.

1893 TORY, JOHN EDWARD, JUN.

1898 TOWNEND, WILLIAM.

1885 TREADWELL, HENRY JOHN (*Driver Prize*, 1883).

1902 TREHEARNE, ALFRED FREDERICK ALDRIDGE.

1900 TREMLETT, WALTER WILLIAM.

1901 TRENT, WILLIAM EDWARD (*Penfold Gold Medal*, 1901).

1893 TUCKETT, PERCIVAL FOX.

1898 TUTT, EDWIN THOMAS.

1893 TYLER, JAMES WILLIAM.

1903 *TYLER, WILLIAM BOTT.

1900 *TYPE, MARCUS OSWALD.

1904 *UNDERWOOD, EDWARD.

1901 UPSDALE, ANDREW REED.

1904 *VEIT, LEONARD JAMES.

1883 VERNON, ARTHUR.

1903 VICKERS, ALFRED CRANSTOUN.

1898 VINTEN, HAROLD BERTRAM.

1901 *WACHER, THOMAS BLAKE.

1897 *WALKER, WILLIAM SELVES (*Special Prize*, 1895; *Crawter Prize*, 1897).

1897 WALLIS, JOHN DAVID.

1902 *WALSH, FREDERICK LEOPOLD MORFEE.

1902 WALTER, THOMAS JAMES.

1902 WARD, HENRY PAYNE (*Special Sanitary Science Certificate*, 1904).

1901 WARMINGTON, HERBERT ANDREW CROMARTIE (*Crawter Prize*, 1901).

1899 WATERFIELD, HORACE CLARE.

1904 *WATT, ALEXANDER LINDSAY.

1900 *WATSON, DAVID ALEXANDER.

1896 WATSON, HERBERT JOHN (*Institution Prize*, 1895).

1895 WATSON JAMES BRUCE.

1894 WATSON, JOHN.

1903 WEALL, JOHN GRAHAM.

1902 WEATHERILL, GEORGE FORD.

1902 WEBBER, HENRY STANTON.

1892 WEBSTER, HUGH CALTHROP.

1904 *WELLS, ARTHUR HARVEY.

1900 WELLS, FREDERIC BEAUCHAMP.

1895 WELLS, WILLIAM HENRY.

1901 WELSH, HUGH.

1902 *WEST, ARTHUR SMITH.

1895 WEST, CHARLES HENRY EDWARD.

1900 WEST, HERBERT JAMES.

1898 WHEATLEY, STEPHEN GLADSTANE

1897 WHEELER, JOHN HENRY WEST.

1902 *WHELDON, MARTIN LOWISH (*Penfold Silver Medal*, 1900; *Driver Prize*, 1900; *Penfold Gold Medal*, 1902; *Crawter Prize*, 1902; *Special Forestry Certificate*, 1904).

1897 WHITAKER, ERNEST VICTOR.

1904 *WHITE, BENJAMIN WILLIAM.

1903 *WHITELEY, CYPRIAN CHARLES OSWALD.

1896 WHITTAKER, JOHN DRONSFIELD (*Penfold Silver Medal*, 1894; *Driver Prize*, 1894; *Penfold Gold Medal*, 1896; *Crawter Prize*, 1896).

1902 WHITTEN, GEORGE JACKSON.

1904 *WHITTON, HAROLD WM.

1897 WHITTON, PERCY.

Members of the Institution who have Passed the Fellowship Examination—continued.

1904 *WIDDICOMBE, CHARLES EDWIN (*Penfold Gold Medal*, 1904).
1903 *WIGLEY, HERBERT HENRY.
1901 WIGLEY, SIDNEY PRUDDEN.
1899 WIGRAM, REGINALD SPENCER.
1896 *WILDE, ALGERNON SIDNEY.
1903 *WILFORD, CECIL MARSHALL.
1901 *WILLIAMS, ARTHUR CODRINGTON.
1903 *WILLIAMS, DANIEL SMITH.
1896 WILLIAMS, HENRY CUTHBERT.
1901 *WILLIAMS, RICHARD ERNEST HAVARD.
1894 WILLIS, EDWARD.
1899 *WILLOUGHBY, CHARLES ALBERT.
1903 *WILLOUGHBY, FRANK.
1904 *WILKES, JOHN FISKE.
1902 *WILSON, EVERARD JOHN.
1899 WILSON, FREDERICK ROBERT.
1898 WILSON, LAWRENCE RICHARD.
1903 WILSON, WILLIAM EDWARD.
1896 WONNACOTT, ERNEST WILLIAM MALPAS.
1903 *WONNACOTT, HOWARD JOHN.
1900 *WONTNER-SMITH, PERCY.
1891 WOOD, CHARLES BRUCE.
1901 *WOOD, JOHN EDWARD.
1904 *WOOD, JOHN GUY.
1896 WOOD, LESLIE STUART (*Special Forestry Certificate*, 1900; *Daniel Watney Prize*, 1900).
1899 WOODROW, THOMAS JOHN.
1895 WOODS, ARTHUR GEORGE.
1900 WOOD-MARTIN, HENRY ROGER BROMHEAD.
1904 *WRIGHT, CHARLES LEE.
1902 *WRIGHT, WALTER BRERETON.
1902 WYATT, ARCHIBALD.
1901 WYATT, HERBERT GUY BUCKELL.
1895 WYLES, JOHN WALTER.
1892 YOUNG, HARRY AUSTIN LINDSAY.
1899 YOUNG, THOMAS JOHN.

Members of the Institution who have Passed the Professional Associateship Examination.†

† *This list does not include the names of those who have passed the Examination but have not yet joined the Institution.*

1891 ABRAMS, BENJAMIN PERCY.
1894 ADAMS, GERALD JAS. FREDERICK
1902 ADAMS, GILBERT MATTHEWS.
1895 ADAMS, HERBERT.
1897 ADDIE, JOHN HEATHCOTE.
1896 ADDISCOTT, HENRY HUGH.
1887 ADKIN, BENAIAH WHITLEY.
1901 ALLEN, FRED TREGARTHEN
1893 ALLEN, JOHN PARNELL.
1902 ALLEN, LESLIE HERBERT.
1895 ALLEN, PERCY.
1896 ALLPRESS, HORACE EDWARD.
1898 ALLSEBROOK, ARTHUR.
1903 ALLSOP, BENJAMIN GEO. KIDSTON.
1896 AMBLER, SYDNEY WOOD.
1902 AMIES, HERBERT CHRISTOPHER.
1892 AMOS, FRANK.
1901 ANDERSON, HENRY.
1895 ANDERSON, THOMAS JOHN.
1898 ANDREWS, ARTHUR GEORGE.
1898 ANDREWS, HERBERT GEORGE.
1896 ANDREWS, STEPHEN HAMPTON.
1898 ANGEL, FRANCIS HOUGHTON.
1887 ANSCOMBE, ERNEST.
1897 APPLEBY, FRANK SEFTON.
1902 APPLEBY, JOHN HENRY JAMES
1894 ARIS, JOHN WHITTON.
1901 ARMSTRONG, ALBERT LESLIE.
1901 ARMSTRONG, JAMES GIBBONS DICKSON.
1899 ARMSTRONG, JOHN WILLIAM WILSON.
1890 ARMYTAGE, FRANCIS REGINALD.
1896 ARNOLD, ALAN.
1900 ARNOLD, HARRY HAGON.
1896 ARNO, SAMUEL.
1885 ARNOTT, JOHN (*Special Prize*, 1885).
1896 ASHENDEN, LEONARD THOMAS.
1902 ASHTON, ARTHUR WARD (*Beadel Prize*, 1902).
1889 ASSITER, HARRY G. (*Special Sanitary Science Cer.*, 1892).
1894 ASTLEY, REGINALD BASIL.
1898 ATTLEE, EDWARD GUY.
1901 AUBREY, WILLIAM BEAUCHAMP.
1901 AUSTIN, FRANK HOLMAN.
1887 AUSTIN, RICHARD, JUN.
1890 AYLEN, CECIL HUGH.

1897 BADDELEY, BERNARD BERESFORD.
1893 BAILEY, LOUIS HEWITT.
1901 BAILEY, PERCIVAL HENRY ASHBY.
1901 BALDWIN-WISEMAN, WILLIAM RALPH, M.SC., F.G.S.
1888 BALL, JAMES BENJAMIN.
1889 BALL, WILLIAM ALFRED.
1902 BAMFORD, WALTER HERBERT.
1890 BANCROFT, FREDERICK HERBERT.

Members who have Passed the Professional Associateship Examination—continued.

1900 BANKS, EDWARD JOHN STANLEY.
1895 BANKS, FREDERICK STUART ANGUS.
1903 BANKS, JOHN, JUN.
1902 BARCLAY, ROBERT HERMAN.
1890 BARCLAY, THOMAS.
1903 BARE, ARNOLD EDWIN.
1899 BARKER, FREDERICK GEORGE.
1892 BARKER, GEOFFREY LIONEL.
1901 BARKER, HERBERT GRAHAM.
1889 BARNES, GEORGE FREDERICK.
1898 BARNS, STEPHEN ALLEN.
1884 BARRATT, HARRY.
1900 BASLEY, HAROLD PULLAM.
1902 BASTABLE, JOHN DANIEL.
1903 BATEMAN, FRANK GRAHAM.
1903 BATSTONE, WALTER WATERFIELD.
1901 BATTERBURY, NORMAN BONIFACE.
1898 BAVERSTOCK, HAROLD BRIDGE.
1903 BAYLEY, HAROLD.
1900 BAYLIS, ALBERT EDWARD.
1899 BAYLIS, ALFRED WILLIAM.
1896 BEACH, ARCHIBALD WILLIAM HICKS.
1890 BEADEL, MAURICE FREDERICK.
1885 BEARD, EDWIN THOMAS.
1891 BEASLEY, JOHN ARTHUR LLEWELLYN (*Driver Prize*, 1891).
1900 BEASLEY, THOMAS CALVERT PLATT.
1903 BEAVEN, HOWARD CLIFFORD.
1903 BEDDALL, HERBERT BOWMAN.
1883 BEDELLS, CHARLES HERBERT.
1903 BEDFORD, CHARLES EDGAR.
1898 BEDWELL, ERNEST CHARLES.
1894 BEKEN, GEORGE KINGSNORTH.
1888 BELCHER, EDWARD JOHN.
1901 BELL, ALBERT HENRY.
1894 BELL, HERBERT OWEN.
1895 BELL-JOHN, HARRY.
1889 BELLINGHAM, ARCHIBALD TURNER.
1884 BENSON, ROBERT ALAN.
1895 BENTLEY, HAROLD EDWIN.
1903 BERRIE, VERO LAVERTON.
1901 BERRY, ALGERNON LAWRENCE.
1898 BERRY, CHARLES WINDSOR.
1902 BERRY, HENRY FRANK.
1898 BETENSON, FREDERIC ROGER.
1901 BETTGER, HAROLD ALFRED.
1898 BETTRIDGE, JOHN CHARLES LEBON.
1892 BEVEN, SEPTIMUS.
1898 BIBBEY, THOMAS.
1897 BICKFORD, JOSEPH GRANT (*Special Prize*, 1897).
1893 BIDWELL, JOHN EVANS.
1895 BIDWELL, PHILIP SHELFORD.
1897 BIGG, LIONEL THURSFIELD.
1903 BINNS, HENRY WILLIAM.
1900 BINGHAM, WILLIAM RAPER.
1895 BIRCH, FRANCIS JULIAN LAURENCE.
1893 BIRCH, RICHARD ELWYN.
1884 BIRCH, WALTER DE HOGHTON.
1886 BIRKETT, TOM.
1897 BLACKSHAW, CHARLES.
1903 BLAKE, ALFRED NORMAN.
1897 BLAKE, EDWIN HOLMES.
1903 BLISS, FRANCIS GEORGE.
1901 BLISS, THEODORE STEPHEN.
1900 BLISS, THOMAS CUSHWAY.
1902 BLORE, CHARLES GORDON.
1894 BLOUNT, EDWARD.
1885 BLUNDELL, HARRY.
1903 BLUNT, FRANCIS EDWARD.
1896 BLUNT, MONTAGUE CECIL.
1898 BLYTH, GEORGE ALFRED.
1900 BLYTH, HAROLD KING.
1902 BOAZMAN, HENRY, JUN.
1896 BODEN, MAURICE.
1893 BODGER, PERCY MORRIS.
1890 BODY, ARTHUR.

Members who have Passed the Professional Associateship Examination—continued.

1895 BOORD, WALTER BERTRAM.
1899 BOOTH, ERNEST WITTON.
1887 BOOTH, GILBERT WILLIAM.
1896 BÖSHER, VICTOR EVANS.
1890 BOULTING, FREDERICK EDWARD.
1902 BOULTON, CHARLES VALENTINE.
1900 BOURCHIER, CLAUD J.
1886 BOUSFIELD, EDWIN VAUGHAN DAVENPORT.
1891 BOWDEN, ERNEST NEWTON.
1897 BOWDEN, HARRY.
1891 BOWDEN, JOHN FRIENDSHIP.
1888 BOWER, ARTHUR WENTWORTH CHIVERS.
1902 BOYTON, BERTRAM ALFRED (*Special Prize*, 1902.)
1890 BRACKETT, FREDERICK HENRY.
1897 BRACKETT, WILLIAM NEWBEGIN.
1894 BRADLEY, JAMES WILLIAM.
1899 BRADSHAW, ARTHUR GEORGE (*Special Prize*, 1899).
1896 BRADSHAW, ARTHUR STANLEY.
1902 BRADSHAW, HAROLD CLAUD.
1888 BRADY, RALPH HOLLINSHED.
1902 BRAMLEY, FRANCIS HERBERT.
1899 BRAND, EDMUND.
1902 BREALEY, REGINALD WOODHOUSE.
1901 BRENT, THOMAS.
1888 BREVETOR, THOMAS.
1889 BRIDGFORD, LEO APPLETON.
1899 BRIDGEWATER, CLEMENT JOSEPH BENTLEY.
1900 BRIERLEY, HUGH COLLEY (*Institution Prize*, 1900).
1886 BRIGGS, JOHN.
1896 BRIGHTON, GEORGE LAWRENCE.
1900 BRIMACOMBE, CHARLES SEYMOUR.
1892 BRINKWORTH, ROBERT EDWIN.
1894 BRINSLEY, HERBERT GEORGE WILLIAM.
1903 BRISTOW, ROBERT C.
1902 BROAD, SYDNEY LOWTHER.
1903 BROADBENT, WILLIAM.
1899 BROOKER, FREDERICK GEORGE.
1895 BROOKS, JOHN MCMULLEN.
1895 BROOKS, PHILIP FULLER.
1899 BROOKS, WILLIAM NATHANIEL.
1903 BROOME, DOUGLAS FRANK.
1891 BROWN, ALEXANDER BURNETT.
1898 BROWN, ARTHUR ALLEN.
1897 BROWN, ARTHUR FREDERICK.
1889 BROWN, ARTHUR MACDONALD.
1896 BROWN, FREDERICK.
1892 BROWN, GEORGE TURVILLE.
1902 BROWN, JAMES CARTER.
1901 BROWN, JOHN.
1902 BROWN, LESLY JOHN.
1898 BROWN, THOMAS, JUN.
1887 BROWN, WILLIAM EDWARD.
1902 BROWN, WILLIAM HENRY.
1893 BROWN, WILLIAM LOBIN TRANT.
1901 BROWNE, EUSTACE MONTAGUE.
1900 BROWNING, EGBERT GEORGE.
1901 BROWNING, SYDNEY BRODRICK.
1894 BRUCE, ALEXANDER DAVID.
1899 BRUTON, BASIL VASSAR.
1900 BRUZARD, GEORGE JOSEPH.
1900 BRYAN, ARTHUR.
1885 BUCKLAND, ALFRED VIRGOE.
1891 BUCKLAND, SIDNEY CRAWFORD.
1901 BUCKLEY, ALFRED EUSTACE.
1901 BUCKWELL, ROBERT LEIGHTON.
1888 BULBECK, GEORGE.
1901 BULL, THOMAS HENRY.
1900 BULLEY, HORACE WILLIAM.
1892 BURDER, REGINALD EDWARD CAMPBELL.
1903 BURGE, ARTHUR JOHN.
1897 BURGESS, HENRY HERBERT PHILIP.
1900 BURMAN, WILLIAM.
1902 BURNETT, JOHN.

Members who have Passed the Professional Associateship Examination—continued.

1900 BURR, HARRY.
1898 BURROUGHES, CHARLES FITZPATRICK.
1886 BURROWS, ALFRED JOHN.
1897 BURROWS, FRANK HERBERT.
1903 BURSTOW, RALPH HENRY.
1898 BURTENSHAW, ALBERT KING.
1895 BURTON, AMOS.
1898 BURTON, REGINALD ROBERT.
1887 BUSHELL, HENRY.
1887 BUSS, FLEETWOOD GEORGE WILLIAM.
1898 BUTCHER, THOMAS EWEN.
1894 BUTLER, ALBERT ERNEST.
1897 BUTLER, CHARLES.
1895 BUTLER, RICHARD PIERCE.
1899 BUTTENSHAW, ERNEST NEWTH.

1901 CABLE, CHARLES VINCENT.
1894 CAMBRIDGE, WILLIAM JAMES.
1895 CAMPBELL, HUGH BRUCE.
1902 CANCH, THOMAS RICHARD.
1902 CANDY, WALTER EMMANUEL.
1897 CARGILL, CAMPBELL FEATHERSTON.
1898 CARR, HERBERT FRANCIS.
1894 CARNELL, SYDNEY GEORGE.
1897 CARPMAEL, HAROLD.
1902 CARR, ARTHUR BENTLEY.
1887 CARTER, ALFRED PRESLEY.
1895 CARTWRIGHT, ALFRED STOTT.
1897 CASSIN, CHARLES LANGA.
1896 CATHCART, ARCHIBALD HAMILTON.
1901 CATLEUGH, WILLIAM DENZIL.
1901 CATON, THOMAS LINFIELD.
1898 CHADWICK, SPENCER.
1888 CHALCRAFT, HENRY TERRELL.
1896 CHAMBERLAIN, ARTHUR GEORGE RADDON.
1901 CHAMBERLAIN, CHARLES.
1894 CHAMBERS, THEODORE GERVASE
1902 CHAMPERNOWNE, AMYAS WALTER.
1893 CHAMPION, GEORGE ERNEST.
1902 CHANDLER, JOHN.
1900 CHARLES, MICHAEL THOMAS.
1895 CHART, CHRISTOPHER.
1903 CHARTRES, FREDERICK WILLIAM CHARLES.
1901 CHATTELL, ARTHUR PAUL.
1898 CHATTELL, FRANCIS LORIOT.
1888 CHENEY, EDWIN JOHN.
1898 CHESTERTON, FRANK SIDNEY.
1900 CHESTERTON, SIDNEY JAMES.
1899 CHICHESTER, RICHARD HERBERT
1892 CHILD, CHARLES.
1888 CHILD, EDMUND HERBERT.
1902 CHILWELL, CHARLES VYVYAN.
1897 CHIPP, GEORGE.
1899 CHURCH, GEOFFREY REDMORE.
1903 CLARK, HERBERT.
1903 CLARK, HUDSON OWEN.
1898 CLARK, NATHANIEL, JUN.
1897 CLARKE, CHARLES WENTWORTH.
1900 CLARKE, ERNEST SEYMOUR.
1899 CLARKE, LEONARD EUSTACE.
1897 CLARKSON, WILLIAM.
1903 CLEMENTS, CYRIL JOHN.
1900 CLUNN, THOMAS HENRY GWYTHER.
1885 COALES, HERBERT GEORGE.
1903 COATES, P. BREVITT.
1903 COATES, LAURENCE CALVERT.
1900 COBB, HENRY ALFRED WILLIAM.
1902 COBB, HENRY FREDERICK.
1901 COBB, ROBERT.
1897 COBBE, HENRY ALEXANDER.
1890 COBHAM, GEORGE WILLIAM.
1900 COCHRANE, WILLIAM JAMES.
1902 COCKE, EDMUND SIDNEY DEAN.
1901 COCKS, JOHN FREDERICK.

Members who have Passed the Professional Associateship Examination—continued.

1901 COKER, HARRY REGINALD ELLIS.
1902 COKER, RALPH HECTOR.
1898 COLE, FRANCIS JOSEPH.
1902 COLE, HERBERT COVINGTON.
1899 COLE, JAMES THOMSON.
1901 COLES, JAMES HATCH.
1887 COLLINGHAM, J. CYRIL LEES.
1896 COLLINS, HORACE.
1885 COLLINS, MARCUS E.
1901 COLLIS, ERNEST ALBERT.
1888 COLLYER, DANIEL WILLIAM.
1903 COLLYER, CHARLES ALEXANDER STEWART.
1898 CONSTABLE, JOHN.
1901 COOK, CECIL NEWTON.
1899 COOK, EDWARD ARTHUR.
1900 COOK, FREDERICK CHARLES.
1897 COOKE, FREDERICK ROPER.
1892 COOKE, LIONEL.
1900 COOKE-YARBOROUGH, ORFEUR FREDERIC.
1900 COOPER, GEORGE AUGUSTUS.
1901 COOPER, HARRY THOMAS.
1900 COPE, GERALD HARWOOD.
1890 COPE, HENRY JAMES.
1897 COPE, WILLIAM GEORGE.
1900 CORBETT, JOHN ROOKE.
1891 CORDEROY, ATHELSTANE.
1895 CORFIELD, THOMAS.
1903 CORNWELL, WILLIAM JAMES.
1896 CORY, EDWARD JOHN.
1903 COTTAM, HARRY.
1897 COUNCELL, THOMAS JAMES.
1894 COWELL, HERBERT LEE.
1896 COWIN, NORRIS TYNWALD.
1895 COWPER, WILLIAM SHAPLAND.
1893 COX, REGINALD JOHN.
1896 COX, WALTER THEODORE.
1902 CRABTREE, PERCY.
1899 CRAGG, GEORGE EDWIN.
1900 CRAMPHORN, CHARLES HERBERT.
1899 CRAMPTON, ARTHUR WESLEY.
1883 CRAWTER, JOHN, JUN.
1894 CREGEEN, HUGH STOWELL, JUN.
1897 CRESWELL, WILLIAM THOMAS.
1891 CRIER, JOHN THOMAS.
1900 CROCKATT, HARRY.
1899 CROFT, GEORGE HERBERT.
1897 CRONK, CHARLES TYLEE.
1899 CROOK, HOLLIS AUGUSTUS.
1894 CROSIER, CHARLES.
1886 CROSLAND, WALTER.
1891 CROSS, ARNOLD CHARLES MARTIN.
1888 CROUCH, JAMES LEONARD.
1895 CROWTHER, KESTON NELSON.
1896 CROZIER, GEORGE FRANCIS.
1901 CRUMP, EDWARD HAROLD.
1903 CRUMP, HAROLD.
1900 CULLEN, FELIX VICTOR.
1903 CULVER, HERBERT GEORGE.
1898 CULVERHOUSE, CECIL GOLDAR FEARN.
1903 CUNDY, HENRY I.
1897 CUSHEN, CHARLES OSMON.
1899 CUTLER, GEORGE ALFRED.

1897 DADD, CHARLES JOHN THOMAS.
1896 DAFFORN, GEORGE BERTIE.
1901 DALE, EDWARD SYDNEY WILSON.
1902 DALGLIESH, CHRISTOPHER.
1898 DANCASTER, ARTHUR.
1897 DANGERFIELD, THOMAS SAMUEL.
1896 DANIEL, HENRY WILKINSON.
1901 DANIELL, FREDERICK STANLEY (*Special Prize*, 1901).
1899 DANN, HENRY, JUN.
1899 DARCH, JOHN.

Members who have Passed the Professional Associateship Examination—continued.

1903 DARLEY, ROBERT BRADSHAW.
1900 DAUBNEY, CHARLES ARCHIBALD.
1888 DAVEY, HENRY THOMAS.
1893 DAVID, GEORGE WILLOUGHBY.
1902 DAVID, LEWIS WOOLLEY.
1900 DAVIDGE, WILLIAM ROBERT.
1897 DAVIDSON, RICHARD BRUCE.
1893 DAVIES, CYRIL FROODVALE.
1892 DAVIES, DAVID THOMAS.
1899 DAVIES, JOHN WILLIAM SATTERLEY HUMPHREYS.
1903 DAVIES, LEONARD OWEN.
1903 DAVIES, RHYS WILTSHIRE.
1891 DAVIS, NEVILLE BROOKES.
1896 DAVIS, WILLIAM HENRY HAROLD
1901 DAVY, CLIFTON ROBERT.
1902 DAWKINS, ALBERT JAMES.
1898 DAWSON, GEORGE CROSBIE.
1883 DAY, WILLIAM, JUN.
1901 DEACON, STANLEY MARCUS.
1903 DEANE, GEORGE FREDERICK.
1892 DEBENHAM, FRANK BRIDGEWATER.
1893 DEBENHAM, FREDERIC KERSEY.
1891 DEBENHAM, HORACE BENTLEY.
1893 DELAMARE, FRANK.
1900 DELLSCHAFT, ADOLF HENRY.
1899 DELVES, ROBERT HARVEY ADDINGTON.
1889 DENDY, WILLIAM COOPER.
1902 DENSHAM, JOHN BOON.
1897 DENTON, WILLIAM.
1899 DICKINSON, JAMES MURGATROYD.
1884 DICKSON, THOMAS ARTHUR.
1902 DINWIDDY, CONRAD HUGH.
1894 DINWIDDY, DONALD.
1888 DIXON, FRANCIS EDWARD (*Special Prize*, 1888).
1901 DODD, HAROLD JAMES.
1887 DONE, JOHN JAMES.
1902 DONNE, CYRIL HENRY.
1897 DOUGLAS, BERNARD MOXON.
1902 DRAKE, FRANK ARTHUR.
1896 DRAPER, EDWIN MAXWELL.
1886 DREW, HENRY ALBAN.
1895 DREW, WALTER HUBERT.
1902 DRIVER, ARTHUR CHARLES.
1901 DRIVER, JOHN ROBERT FARRANT.
1902 DROWER, EDMUND GILBERT.
1892 DRUCE, EDRIC.
1902 DUCHESNE, MARTIN COLLIER.
1889 DUDLEY, EDGAR.
1900 DUDLEY, ROLAND.
1901 DUNDAS, FREDERICK JAMES.
1899 DUNLOP, DUGDALE OAKELEY.
1900 DUNSTALL, HERBERT HENRY.
1897 DUNT, JOHN HARLOW.
1898 DYER, FREDERICK BURFIELD.

1900 EARLE, JOHN WILFRID.
1893 EASON, EDWARD WILLIAM.
1886 EASTER, WILLIAM.
1893 EASTON, WALTER JOHN (*Driver Prize*, 1893).
1901 EASTWOOD, CHARLES WILLIAM.
1901 EDGINGTON, WALTER.
1893 EDMONDS, JOHN.
1895 EGGINGTON, DENYS.
1903 EGREMONT, JOHN.
1903 ELDER, ERNEST.
1902 ELGAR, CHARLES JOHN.
1893 ELGAR, WALTER ROBINSON.
1890 ELGOOD, FRANK MINSHULL.
1897 ELIOTT, ARNOLD.
1901 ELLIOTT, JOHN WILLIAM FARRANT.
1892 ELLIS, ALBERT EDWARD.
1897 ELLIS, ALFRED CAVE.
1898 ELLIS, ARNOLD ROBERTSON.

Members who have Passed the Professional Associateship Examination—continued.

1901 ELLIS, ARTHUR ORANGE.
1890 ELLIS, FRANCIS.
1888 ELLIS, HERBERT MOATES.
1887 ELLIS, RALPH STAPLES.
1900 ELLIS, RUPERT LUMLEY.
1896 ELPHICK, GEORGE PELHAM.
1903 EVANS, CHARLES STOKES EATON.
1895 EVANS, ERNEST SYDNEY.
1895 EVANS, PERCIVAL BAKER.
1900 EVANS, RUPERT MAURICE.
1894 EVE, CHARLES GERALD.
1887 EVE, HERBERT TRUSTRAM.
1892 EVERED, GILLIEBRAND EDWIN.
1892 EVERETT, ARTHUR SHERMAN.
1894 EVERINGTON, JOHN.
1901 EVERY - CLAYTON, REGINALD ARTHUR ERIC.
1894 EVES, FRANCIS GEORGE BERTRAM
1888 EVES, WILLIAM LIONEL.
1902 EWING, JAMES PETERS.

1894 FAGG, EDWIN WILLIAM.
1896 FAIR, ARTHUR EDWARD.
1903 FAIRCHILD, EDWARD JAMES.
1895 FARMER, HUGH CECIL.
1897 FARNHAM, WILLIAM AUGUSTUS.
1903 FENNING, JOHN HENRY.
1898 FIELD, CHARLES ROLAND.
1901 FIELD, LEONARD MARTIN.
1894 FINCH, CLEMENT ROBERT.
1892 FINN, FRED.
1891 FINN, HERBERT ARCHIBALD.
1896 FISHER, ROBERT.
1893 FITT, HARRY CHARLES.
1903 FLATT, JOHN ALEXANDER.
1895 FLEETWOOD, GEORGE SPALDING.
1900 FLETCHER, HAROLD VENOUR.
1893 FLETCHER, HERBERT PHILLIPS.
1903 FLEURET, ALFRED HARMAN.
1892 FLIGHT, ALFRED.
1902 FORD, C. GRAHAM.
1892 FORD, SOLOMON.
1890 FORREST, WILLIAM.
1895 FOSTER, EDWARD CHARLES.
1888 FOSTER FRANK.
1898 FOSTER, HENRY HELM.
1892 FOSTER, JAMES HERBERT FURMEDGE.
1900 FOSTER, WALTER.
1901 FOSTER, WILLIAM ARTHUR.
1900 FOSTER, WILLIAM HOWARD.
1901 FOTHERGILL, JAMES EDWARD.
1898 FOULKES, NOEL MACINTYRE.
1899 FOWLER, ALFRED CHARLES STANLEY.
1902 FOWLER, CYRIL JAMES.
1892 FOX, CHARLES EDWARD.
1900 FOX, ERNEST.
1894 FOX, FREDERICK RUSSELL.
1900 FOX, WILLIAM.
1901 FRANCIS, JOHN, JUN.
1902 FRANCIS, RONALD GARNHAM.
1891 FRANKLIN, BENJAMIN BELGROVE.
1895 FRASER, THOMAS SMELLIE.
1890 FRASER, WILLIAM.
1899 FREEMAN, GEORGE (*Driver Prize*, 1899).
1901 FREEMAN, REGINALD FRANK LYNE.
1903 FRENCH, ARTHUR MARTIN.
1902 FRENCH, CECIL GEORGE.
1900 FREUER, WILLIAM SAMUEL.
1902 FROST, ALFRED CARDAIN.
1895 FUNNELL, HORACE FREDERICK.
1887 FURBER, PERCY NORMAN.
1897 FURMEDGE, JOHN HARRIS.

1902 GAGIAN, ROBERT MERISFORD.
1903 GAIRDNER, KENNETH GREAME.

Members who have Passed the Professional Associateship Examination—continued.

1900 GALE, HARRY.
1889 GALSWORTHY, VINCENT SOMERS
1898 GARDINER, ROBERT STRACHAN.
1892 GARDNER, GILBERT.
1895 GARNER, JOHN STANLEY.
1890 GARRARD, ARTHUR NORMAN.
1894 GARRETT, ARTHUR BERRY.
1899 GATE, HENRY ARTHUR ARMYTAGE (*Institution Prize*, 1899).
1897 GAYER, ALFRED EDWARD.
1903 GENDERS, PERCY ROBERT.
1899 GENGE, WILLIAM POPE, JUN.
1892 GERMAN, GEORGE, JUN.
1896 GETHIN, RANDOLPH GEORGE.
1901 GETTINGS, SYDNEY SALTER.
1900 GIBBON, EDWARD ACTON.
1885 GIBBON, WILLIAM JACOMB (*Driver Prize*, 1885).
1889 GIDDY, OSMAN HORTON.
1894 GILBERT, JOHN SAINSBURY.
1903 GILBERT, SAMUEL HOWELL.
1902 GILLIES, JOHN JEFFREY.
1901 GIMSON, ALLEN.
1903 GLASIER, MORTIMER SACKVILLE.
1903 GLASSON, THOMAS MC.
1901 GLEED, HERBERT ALEXANDER.
1903 GLEED, PERCIVAL FRANCIS.
1903 GLOAG, TOM KEEPING.
1894 GLOVER, HENRY ALEXANDER.
1896 GOADBY, HOWARD.
1898 GOADBY, JOSEPH STUBBINS.
1903 GODDING, FRANK HORATIO.
1897 GOLDSMITH, DOUGLAS FLEET.
1900 GOODBODY, FREDERICK ALLEN STURGE.
1902 GOODCHILD, RALPH HARRY.
1901 GOODCHILD, WALTER CHARLES.
1899 GOODMAN, ALFRED.
1903 GOODWIN, HENRY ERNEST.
1903 GOODWIN, PERCY WORTHINGTON.
1903 GORE, GEORGE PYM.
1901 GOULD, HARMER.
1896 GOULDING, ARTHUR.
1889 GRANT, JOSEPH.
1897 GRAY, HORACE NORMAN.
1893 GRAY, PERCY WILLIAM.
1890 GREEN, ALEXANDER ERNEST.
1896 GREEN, ARTHUR EDWARD.
1891 GREEN, EDMUND HORACE.
1893 GREEN, FREDERICK ALGERNON.
1887 GREEN, THOMAS JOHN.
1896 GREENFIELD, FREDERICK JAMES.
1884 GREENOP, EDWARD.
1897 GREENWOOD, ERNEST.
1895 GREGSON, GEORGE ERNEST.
1903 GRIERSON, JOHN CAMPBELL.
1894 GRIFFIN, ALFRED.
1903 GRIFFITHS, OWEN.
1892 GRIGGS, HENRY JENNER.
1898 GRIPPER, JOSEPH EDWARD.
1900 GROVE, RICHARD THOMAS.
1889 GROVER, ARTHUR.
1894 GROVER, PHILIP GORDON.
1902 GROVES, ARNOLD TUDOR.
1888 GUNTER, JAMES.
1899 GURNEY, RONALD GEORGE.

1889 HADLEY, FRANK.
1903 HAGGER, GEORGE JOHN.
1892 HAIGH, THOMAS FREDERICK.
1901 HAINES, ALFRED HUBERT JESTON.
1902 HALE, FRANCIS EDWARD.
1884 HALKYARD, WILLIAM REDFORD.
1900 HALL, AUGUSTUS WILLIAM.
1897 HALL, HENRY ALEXANDER THOMAS.
1896 HALL, JOHN HERBERT.
1899 HALL, JOHN SEBASTIAN.

Members who have Passed the Professional Associateship Examination—continued.

1903 HALL, MONTAGUE PRESTON.
1895 HALL, THOMAS BIDDLE.
1884 HALL, WILLIAM TIMOTHY.
1890 HAMPTON, GEORGE FREDERICK WILLIAM.
1900 HANCOCK, HENRY SYDNEY, JUN. (*Special Prize*, 1900).
1895 HANKEY, GILBERT LIONEL.
1892 HANKINSON, FRANCIS HENRY.
1887 HARDING, FREDERICK ALLCROFT.
1887 HANSELL, REGINALD GODDARD.
1902 HANSON, HAROLD.
1894 HARDIMAN, HARRY.
1895 HARDWICK, ARTHUR JESSOP.
1903 HARLAND, HENRY CHAPMAN.
1900 HARLOW, WILLIAM WYATT RIDGWAY.
1901 HARRIS, DOUGLAS.
1895 HARRISON, ARTHUR.
1895 HARRISON, CYRIL HENRY GILMORE.
1901 HARRISON, ERNEST.
1894 HARRISON, GEORGE JOHN ROBERTSON.
1897 HARRISON, HENRY BEAUCHAMP.
1897 HARRISON, JOHN EDWARD.
1903 HARRISON, WILLIAM.
1899 HARTLEY, TOM PERCY.
1895 HARVEY, FREDERICK CHARLES.
1888 HASKINS, WILLIAM ALBION.
1889 HASLAM, DRYLAND, JUN.
1883 HASLUCK, LANCELOT GERALD.
1898 HASSETT, REGINALD CHARLES.
1893 HAWES, FREDERICK KIRK.
1903 HAWKINS, EDWARD ROBINSON.
1899 HAWKINS, LANCELOT GOULDER.
1903 HAY, PERCY GILBERT.
1903 HAYLLAR, SIDNEY HAYLLAR.
1901 HAYWARD, ARTHUR BALDWIN.
1890 HAYWARD, FREDERICK GEORGE.
1897 HAYWARD, T. WM. ALFRED.
1895 HAYWOOD, SAMUEL SPENCER.
1902 HAZLEDINE, JOHN TURNER CLOUGH (*Driver Prize*, 1902; *Penfold Silver Medal*, 1902).
1889 HEAD, JOHN GEORGE.
1897 HEAD, WILLIAM ALFRED.
1900 HEAL, HERBERT GEORGE.
1898 HEALING, OSWALD JUDD.
1894 HEASLER, HOLLAND CHARLES.
1898 HEATH, HENRY CUBITT.
1902 HEATH, JOHN LIONEL.
1902 HEATHCOTT, ROBERT VERNON.
1885 HEBBLETHWAITE, CHARLES HENRY.
1901 HEBDEN, FRANCIS RADCLIFFE.
1894 HECKFORD, HARLEY.
1892 HELLICAR, GEORGE THOMAS (*Special Sanitary Science Certificate*, 1893).
1896 HEMPHILL, CHARLES GEORGE CATHCART.
1886 HENDERSON, RICHARD.
1902 HENNELL, FRANK GORDON.
1903 HENNIKER, FREDERICK SIBERT.
1903 HESKETT, WILLIAM DONALD.
1894 HEWARD, ERNEST JAMES.
1893 HEWETT, GEORGE THOMPSON.
1902 HEWETT, RICHARD.
1901 HICKMAN, ARTHUR MURHALL.
1895 HICKS, WILLIAM ROOKE.
1900 HIDER, SYDNEY WILLIAM.
1889 HIGGINS, GEORGE.
1886 HILL, ALFRED.
1885 HILLIARD, GEORGE EDWARD.
1900 HILLIARD, HUGH NEVILLE.
1901 HINCHLIFF, GEORGE STANLEY WHITMORE.
1899 HINCHSLIFF, EDWARD ROBERT.
1899 HINDMARSH, MICHAEL ANSELM.
1900 HINDMARSH, RALPH FREDERICK.
1898 HINKS, HENRY.
1903 HINTON, HERBERT ARTHUR.

Members who have Passed the Professional Associateship Examination—continued.

1900 HIPSLEY, FREDERICK WILLIAM.
1903 HOARE, ARTHUR J. (*Driver Prize*, 1903; *Penfold Silver Medal*, 1903).
1898 HODGES, CECIL STUART.
1890 HODGKINSON, JAMES HENRY.
1896 HODGSON, ARCH. SANFORD.
1903 HOLBECHE, NIGEL LAURENCE.
1902 HOLBECHE, ROBERT CECIL.
1897 HOLBROW, HERBERT OLIVER.
1903 HOLDITCH, CHARLES STANLEY.
1893 HOLIDAY, PERCY CAVE.
1898 HOLL, MACKINTOSH MELENG.
1891 HOLLIS, HERBERT.
1891 HOLLIS, RALPH.
1894 HOLMES, JOHN EDWARD.
1901 HOLMES, MONTAGU PRICE (*Institution Prize*, 1901).
1888 HOMAN, HUBERT FRANKLIN.
1902 HOME, PHILIP WOOLLATT.
1896 HOMFRAY, HERBERT RICHARDS.
1901 HOOD, HERBERT CHARLES.
1896 HOOD, THOMAS.
1899 HOOLEY, ARTHUR JOHN.
1900 HOOPER, ALFRED EGBERT.
1887 HOOPER, CECIL HENRY.
1895 HOOPER, EDGAR WILFRED.
1899 HOPE, ARTHUR ERNEST.
1901 HOPKINS, PERCY RAYNES.
1903 HORDER, GERALD MORLEY.
1901 HOSEGOOD, ANDREW WEBBER.
1901 HOSKINS, MARCUS.
1903 HOUBLON, FRANCIS ARCHER.
1900 HOUGHTON, WILLIAM CHARLES.
1902 HOW, HERBERT.
1903 HOWARD, EDMUND.
1900 HOWES, ARTHUR BURNABY.
1899 HOWGRAVE-GRAHAM, ALAN HERBERT.
1898 HOWGRAVE-GRAHAM, GEORGE ERNEST.
1903 HOWKINS, FRANCIS.
1897 HOWLAND, ARTHUR FRANK.
1899 HOWLAND, GEORGE.
1901 HUBBLE, LLOYD UNSWORTH.
1898 HUDSON, ALBERT WILLIAM.
1901 HUDSON, WILLIAM FREDERICK ARTHUR.
1899 HUNT, GEORGE WHITAKER.
1901 HUNT, HARRY
1899 HURLBUTT, PERCIVAL.
1902 HUSKINSON, ERNEST AMPHLETT.
1897 HUTCHINS, RICHARD.

1890 INNES, GILBERT PLANTAGENET MITCHELL.
1901 INGRAM, CECIL WALTER.
1903 INGRAM, JAMES FRANCIS.
1902 INSLEY, GEORGE PITRON.
1893 IRVINE, ARCHIBALD WYNDHAM.

1894 JACKSON, ALFRED ERNEST.
1894 JACKSON, EDWARD HENRY.
1895 JACKSON, LEONARD LABREY.
1902 JACKSON, RICHARD STEPHENS
1898 JACKSON, ROBERT EWAN.
1902 JAMES, HERBERT HAROLD.
1902 JAMESON, CECIL WILLIAM.
1894 JARMAIN, WILLIAM.
1892 JARMAIN, FRANK WILMOT.
1892 JARRETT, THOMAS WILLIAM.
1903 JARVIS, ERNEST CORY.
1902 JEFFERY, FRANCIS WILSON.
1893 JEFFREE, SYDNEY.
1895 JENKIN, ARTHUR PEARSE.
1896 JENKINS, RICHARD JAMES.
1893 JENKINSON, JOHN.
1896 JENKINSON, WILLIAM ERIC LEIGH.

Members who have Passed the Professional Associateship Examination—continued.

1894 JENNER, WILLIAM.
1896 JENNINGS, FITZ-LAURENCE PERCIVAL DUDLEY.
1891 JESSETT, CHARLES EDWARD VERNON.
1892 JOHNSON, BERNARD MARR.
1900 JOHNSON, FREDERICK JOHN.
1897 JOHNSON, HARRY LABRON.
1883 JOHNSON, HENRY.
1903 JOHNSON, WILLIAM INGLIS.
1898 JOHNSTON, REGINALD.
1887 JOHNSTON, WALTER HENRY.
1902 JOHNSTONE, AUGUSTUS FREDERIC.
1899 JOLLY, PEARSON ALEXANDER.
1900 JONAS, HAROLD DRIVER.
1887 JONAS, HARRY MARSHALL.
1902 JONAS, ROBERT COLLIER.
1886 JONAS, SAMUEL MARSHALL.
1900 JONES, ARTHUR BAYLY.
1902 JONES, ARTHUR ERNEST.
1896 JONES, ERNEST JOEL.
1888 JONES, FREDERICK HERBERT.
1883 JONES, HENRY ARTHUR.
1898 JONES, JOHN ARTHUR.
1902 JONES, JOHN RICE.
1898 JONES, PERCY EVERLEY.
1899 JONES, PHILIP VIVIAN.
1891 JOYCE, HARRY WARD.
1902 JULL, ROBERT CHARLES.
1885 JULL, WILLIAM VINCENT.

1890 KAY, WALTER ROBERT.
1900 KAYE, HERBERT.
1895 KEAY, WILLIAM.
1902 KEELE, JOHN DANIEL.
1894 KEEP, WILLIAM HENRY.
1901 KEIGHLEY, SAMUEL.
1901 KELLEWAY, HERBERT DAVIES.
1900 KELLY, ARTHUR RALPH.
1899 KELLY, GEORGE WILLIAM CALVER.
1890 KEMP-SMITH, JAMES FREDERICK
1900 KEMSLEY, NORMAN BOLTON.
1895 KEMSLEY, WILLIAM HUGH.
1893 KENNETT, CHARLES ARTHUR.
1903 KENT, PHILIP, JUN.
1903 KER, ARTHUR PRESTON.
1897 KERR, JOHN MURRAY (*Institution Prize*, 1897).
1903 KERR, NORMAN MUNRO.
1896 KEY, ASTLEY COOPER.
1897 KIBBLEWHITE, HENRY JAMES TRELEAVEN.
1894 KIESER, WILLIAM HENRY GUSTAV.
1894 KILLICK, ANTHONY EDWARD.
1898 KINCAID, HERBERT EDWARD.
1887 KING, ALFRED.
1901 KING, FREDERICK AUGUSTUS.
1893 KING, WALTER NIKE.
1886 KING, WILLIAM ISAAC.
1896 KINGSFORD, PERCY HAMILTON.
1896 KIRBY, EDMUND FRANCIS JOSEPH
1895 KIRK, JOHN WRIGHT.
1900 KNIBB, FREDERICK CHARLES.
1903 KNIGHT, FREDERICK WILLIAM.
1892 KNIGHT, GEORGE EDWARD.
1899 KNOWLES, GEORGE POTTER.
1902 KNOX, LEONARD NEEDHAM.

1903 LABDON, HERBERT GEORGE.
1899 LAIRD, NINIAN P.
1895 LAKE, CUTHBERT JOSEPH.
1901 LAKE, RALPH JULIAN.
1890 LAKE, VIVIAN DAVEY.
1895 LAKIN-SMITH, ERNEST.
1902 LAMBERT, ARTHUR JOHN.
1903 LAMBERT, GEORGE ARROW.
1888 LAMBERT, GODFREY CHARLES.
1895 LAMPRILL, WILLIAM THOMAS.
1893 LANCASTER, JOHN ROY.
1903 LANCASTER, SAMUEL
1902 LANDER, ROWLAND STANLEY.

Members who have Passed the Professional Associateship Examination—continued.

1903 LANG, AUGUSTUS BERNARD DASHWOOD.
1902 LANG, FREDERICK BARTLETT.
1901 LANGRIDGE, WALTER FREDERICK.
1900 LANHAM, LAURENCE.
1885 LANSDOWN, GEORGE ARTHUR.
1890 LARKIN, RICHARD WEBSTER.
1899 LATHAM, ALBERT TUMMONS.
1895 LAUMANN, MONTGOMERY PATRICK JOHN.
1899 LAURENCE, WALTER BERNARD.
1891 LAWLEY, FREDERICK WILLIAM.
1900 LAWLEY, GEORGE FRANK.
1902 LAWRENCE, CHARLES PHILLIPS.
1901 LAWRENCE, JOHN
1898 LEAKE, ROBERT.
1896 LEANE, WALTER BURDITT.
1903 LEANING, AUBREY RUPERT SIDNEY.
1890 LEANING, HENRY JOHN
1894 LEANING, WILLIAM ARTHUR.
1897 LEATHER, WILLIAM BEAUMONT.
1895 LEE, ERNEST EDWARD ARTHUR.
1896 LEE, FRANCIS BLACKLOCK.
1896 LEE, HENRY.
1886 LEE, JOHN WILFRID.
1901 LEE-NORMAN, ALEXANDER HENRY.
1901 LEES, FRANK ARTHUR.
1902 LEES, RANDLE BURSLAM.
1900 LEIGH, VINCENT STANLEY.
1896 LEESE, VERNON FRANCIS.
1899 LEMMOIN-CANNON, HENRY.
1902 LESLIE, HARRY GEORGE.
1890 LEWIS, ARTHUR LLEWELYN.
1898 LEWIS, JOHN.
1899 LICKIS, LEONARD.
1894 LIGHTFOOT, FRANCIS PRIDEAUX.
1903 LINDSELL, PHILIP JANSON.
1900 LISNEY, HARRY.
1892 LITTLE, HENRY.
1900 LIVING, CHARLES, JUN.
1903 LIVING, ROBERT.
1898 LLOYD, DONALD (*Institution Prize*, 1898).
1897 LOFTHOUSE, ALBERT WILSON.
1899 LOMAS, ALBERT DANIEL.
1897 LOMAX, ERNEST GEORGE.
1891 LONGSDON, ERNEST MORRWOOD.
1901 LOVE, JAMES BARR.
1895 LOVEGROVE, CHARLES GRESHAM
1901 LOVELESS, ARTHUR WILLIAM HENRY.
1886 LOWE, CHARLES ROBERT.
1892 LUCAS, JOHN ARCHIBALD.
1903 LUCAS, JOHN CLAY.
1895 LUCK, GEORGE EDWARD.
1902 LUFFINGHAM, WILLIAM JOHN.
1899 LUKE, JOHN, JUN.
1899 LUKER, DYNELEY.
1899 LUMLEY, EDWARD ADRIAN.
1898 LUMLEY, FREDERICK ROBERT.
1902 LUNN, ALGERNON PERCY.
1902 LUSH, WILLIAM VAWDREY.
1899 LYNES, HUMPHREY DOD.
1902 LYON, MICHAEL LEWIS.
1894 LYONS, EDWARD COLVILL.

1894 MCCARTHY, HENRY ROBERT
1903 MCCOMAS, HERBERT WILLIAM.
1901 MCGAW, ANDREW KIDD.
1902 MCLEAN, DONALD, JUN.
1893 MACER, ALFRED THOMAS.
1897 MACKENZIE, HECTOR JOHN MAXWELL.
1900 MACKINTOSH, WILLIAM SMITH.
1903 MADGE, WILFRID.
1899 MAGER, SYDNEY.
1900 MAGGS, LEONARD.
1896 MALLINSON, CHARLES HERBERT.
1893 MANN, FREDERICK CHARLES THOMAS.
1888 MANN, ROBERT BAGSHAW.

Members who have Passed the Professional Associateship Examination—continued.

1897 MARCHANT, ROBERT CHARLES.
1898 MARCUS, WILLIAM MORTIMER.
1903 MARGESSON, ANTHONY ROBERT.
1902 MARKS, THOMAS EDWARD.
1901 MARRIAN, HAROLD GREENWOOD.
1902 MARSHALL, GEORGE ERNEST.
1896 MARTIN, ALEXANDER WILLIAM.
1893 MARTIN, ALFRED JOHN (*Special Prize*, 1893).
1888 MARTIN, HEBER GAMBLIN.
1900 MARTIN, JOHN PATTERSON.
1893 MARTIN, SAMUEL.
1888 MARTIN, THOMAS.
1889 MASON, CHARLES WILLIAM HAYLEY.
1902 MASON, HERBERT WALTER.
1885 MASSIE, FRANK.
1901 MASTERS WILLIAM HENRY.
1900 MATHER, JAMES.
1893 MATHEWS, LEWIS OSLER.
1899 MATTHEWS, DOUGLAS SAMUEL.
1892 MAUGHAN, JOHN (*Special Forestry Certificate*, 1893).
1902 MAW, PERCIVAL TRENTHAM.
1901 MAXWELL, DAVID BENJAMIN.
1886 MAXWELL, FRANCIS WILLIAM.
1902 MAY, PHILIP JOHN.
1894 MAY, WILLIAM CHARLES.
1903 MAYHEW, ROBERT HENRY JEWERS.
1899 MEABY, THOMAS JAMES.
1902 MEACHER, EDMOND (*Institution Prize*, 1902).
1898 MEACHER, EDWARD ERNEST.
1898 MEACHER, SYDNEY GEORGE.
1892 MELLENFIELD, JAMES HENRY.
1893 MELLOR, JAMES FREDERICK.
1887 MELROSE, FRANK. (*Special Sanitary Science Certificate*, 1893).
1895 MENMUIR, ROBERT WILLIAM.
1892 MENZIES, ROBERT.
1894 MERCER, CHARLES EDWARD.
1899 MEREDITH, PERCY WILLIAM.
1899 MERRICK, FREDERICK WALTER.
1902 MERRITT, WILLIAM FRANCIS.
1890 MERRY, ARTHUR WALKER.
1896 MEYER, HORACE LEYCESTER.
1901 MICHELL, JOHN.
1898 MILBOURNE, JOHN SEYMOUR.
1894 MILLER, FREDERICK WILLIAM.
1892 MILLER, GEORGE FREDERICK.
1900 MILLS, ARTHUR ERNEST.
1901 MILLS, DANIEL.
1903 MILNE, WILLIAM EDWARD STREATFEILD.
1903 MINORS, ERNEST.
1891 MITCHELL, GEORGE SHARMAN.
1903 MITCHELL, HAROLD HASTINGS.
1901 MITCHELL, HERBERT ARTHUR.
1894 MITCHELL, LEWIS.
1884 MIXER, EDWARD.
1899 MOAT, ERNEST WILLIAM.
1903 MOCKETT, WILLIAM SHERWOOD.
1896 MOERAN, ARCHIBALD EDWARD.
1897 MOLYNEUX, FRANK EUSTACE.
1890 MOLYNEUX, HERBERT ERNEST.
1902 MOODY, HERBERT JOHN.
1901 MOORE, ARTHUR WILLIAM
1903 MOORE, ERNEST LLEWELLYN.
1883 MOORE, HAROLD EDWARD.
1896 MOORE, HUGH ARMYTAGE.
1903 MOORE, RICHARD CHARLES.
1900 MORLE, DENZIL ADAIR BARTLETT.
1898 MORRIS, ARTHUR.
1892 MORRIS, RICHARD PERCIVAL.
1894 MORRIS, WILLIAM HENRY.
1900 MORRIS-DAVIES, JAMES GEORGE.
1892 MORRISH, HUGH KENNETH.
1893 MORRISON, DANIEL.

Members who have Passed the Professional Associateship Examination—continued.

1893 MORRISON, GERALD DONALD.
1901 MORRISON, IVOR CHARLES.
1902 MORSE, DUDLEY WALTER.
1902 MOSS, CHARLES PERCY.
1890 MOULD, GRAHAM HARLEY.
1883 MOYES, JOHN HELENUS.
1889 MUIR, JAMES (*Institution Prize*, 1889).
1891 MULLER, JOHN JOSEPH,
1898 MULLETT, HENRY THOMAS.
1899 MUMBY, ELVIN FOWLER.
1903 MUNDELL, JOSEPH EDWARD.
1901 MURDOCK, CLIVE.
1902 MURTOUGH, JOSEPH.
1902 MYTTON, PHILIP ALDRED.

1902 NEAME, FREDERICK IVO.
1902 NEILL, JAMES NEILL.
1898 NESBITT, JOHN OSCAR.
1903 NETTEN, PERCY JOHN.
1894 NEUBRONNER, HARRY ALFRED.
1903 NEWBORN, CHARLES REGINALD.
1902 NEWINGTON, CALEB RICKMAN K.
1903 NEWLING, ARTHUR NOEL.
1902 NEWMAN, BERNARD.
1899 NEWMAN, HENRY ARTHUR.
1892 NEWMAN, SAMUEL FRANK.
1900 NEWMAN, WALTER PHILIP.
1903 NEWNHAM, FRANK GEORGE.
1896 NEWTON, EDWIN BENNETT BRIERLEY.
1903 NEWTON, JAMES WILLIAM.
1894 NICHOLLS, EDWARD ALFRED.
1888 NICHOLSON, EBENEZER.
1898 NICHOLSON, GUY MURRAY.
1896 NOBLE, EDMUND JAMES.
1890 NOCKOLDS, ALFRED GEORGE.
1888 NOCKOLDS, MARTIN CHARLES HUBERT.
1901 NOTLEY, LESLIE RICHARD.
1895 NUTTALL, HERBERT.
1898 NUTTER, JOHN.

1903 NYE, HAYDN PERCIVAL.

1891 OAKLEY, CHRISTOPHER PERCIVAL.
1890 OAKLEY, JOHN HUBERT.
1901 OATEN, ALFRED EDWARD.
1899 O'BRIEN, DONOUGH RICHARD.
1890 OGDEN, MICHAEL GUY.
1897 OGILVIE, ROBERT MATHEWSON.
1896 OLDNALL, ROGER WILLIAM.
1902 ORCHARD, ALFRED DEAN.
1898 ORCHARD, SIDNEY SAMUEL.
1902 O'REILLY, HENRY G.
1903 ORTON, WILLIAM GOODACRE.
1898 ORWIN, CHARLES STEWART.
1896 OSBOURN, EDWARD.
1896 OSENTON, CHARLES.
1890 OSENTON, GEORGE.
1903 OSMOND-SMITH, FRANCIS HENRY GEORGE.
1892 OUVRY, PETER ARNOLD.
1892 OVENDON, CHARLES.
1901 OVERTON, WILLIAM HENRY.
1902 OWEN, HARRY BERTRAM.

1894 PAGE, STANLEY HATCH.
1897 PAICE, WILLIAM, JUN.
1893 PAIN, GEORGE LLOYD.
1883 PAIN, JAMES.
1894 PAIN, WILLIAM HENRY.
1888 PALAMOUNTAIN, JOSEPH WILLIAM.
1899 PALLISER, WILLIAM ARTHUR.
1903 PALMER, ARTHUR.
1903 PALMER, FREDERICK CHARLES RICHARD.
1891 PALMER, WILLIAM EDWARD KING.
1892 PARKER, FREDERIC WILLIAM.
1900 PARKER, HOWARD.
1902 PARKHOUSE, SAMUEL.
1903 PARKINSON, EDWARD.

Members who have Passed the Professional Associateship Examination—continued.

1902 PARKINSON, HERBERT
1895 PARKS, WALTER.
1897 PARNACOTT, ARTHUR CHARLES.
1901 PARNWELL, SYDNEY ARTHUR.
1889 PARRIS, CHARLES JOHN.
1903 PARROTT, HUGH FRANCIS VIVIAN.
1902 PARRY, ALBERT EDWARD.
1899 PARRY, HERBERT MOSTYN.
1887 PARRY, RICHARD.
1894 PARRY, RICHARD FREDERICK.
1902 PARSONS, MAURICE HARRY DONNE.
1903 PARSONS, MEREFIELD DONNE.
1890 PARTRIDGE, EDWARD JOHN.
1896 PATCH, SHIRLEY HUTCHINS.
1901 PATON, DAVID LLEWELLYN (*Driver Prize*, 1901; *Penfold Silver Medal*, 1901).
1902 PATTISSON, WILLIAM HENRY MUNNINGS.
1895 PAUL, JOHN WILLIAM.
1883 PAULL, ALAN.
1902 PAVITT, HAROLD WILLIAM.
1901 PEACE, JOHN CHALMERS.
1896 PEARCE, CHARLES FREDERICK.
1898 PEARCE, FRANCIS ARTHUR.
1893 PEARCE, FRED. W.
1903 PEARCE, STEPHEN HARVEY.
1896 PEARSE, OCTAVIUS BURROUGHES
1902 PEARSE, THOMAS WILLIAM.
1895 PEARSON, HARRY JOHN.
1893 PEARSON, HOWARD.
1902 PEARSON, THOMAS GIBSON.
1898 PEASE, CHARLES EDWARD.
1893 PEGGE, JOHN THOMAS.
1897 PEEBLES, PHILIP.
1903 PEILE, CHARLES FREDERICK.
1901 PENROSE, EDWARD ALEC.
1903 PEPLER, GEORGE LIONEL.
1897 PEPPERCORN, HENRY MCARTHUR.
1896 PEPPERCORN, JOHN ARTHUR.
1901 PERCIVAL, WALTER GILBEY.
1902 PERKIN, DANIEL WARD.
1889 PERKINS, JOSEPH.
1886 PERKINS, WALTER FRANK.
1900 PERKS, HUGH EARL.
1885 PERKS, SYDNEY.
1900 PERRINS, GEORGE LATHOM.
1899 PETCH, JOHN STONEHOUSE.
1902 PETERS, GEORGE FARMER JAMES.
1901 PETTER, ALBERT EDWARD.
1894 PHILLIPS, FRANCIS JOHN.
1887 PHILLIPS, WILLIAM DEARLOVE (*Special Prize*, 1887).
1903 PHILPOT, CLIFFORD NEEDHAM.
1886 PHYSICK, WALTER FREDERICK (*Institution Prize*, 1886).
1895 PIERCY, FREDERIC ONSLOW.
1883 PILDITCH, PHILIP EDWARD.
1901 PILDITCH, WILLIAM THOMAS.
1903 PINCKNEY, HENRY CHRISTOPHER.
1890 PINDER, RICHMOND.
1897 PINEGER, JAMES REGINALD.
1897 PINFOLD, FRANCIS ARTHUR.
1896 PINNEY, FREDERICK WYLDBORE DIGBY.
1901 PINSENT, FRANCIS WINGFIELD HOMFRAY.
1900 PINSON, GILBERT.
1900 PITT, PHILIP SEPTIMUS.
1902 PITTS, FRANK ERNEST.
1900 PLANT, WILLIAM.
1900 POLE, ALEXANDER CHARLES REGINALD.
1902 POLLOCK-HODSOLL, HAROLD EDWARD.
1903 POOLE, HERBERT HENRY.
1903 PORTER, DOUGLAS DAVID.
1903 PORTER, SYDNEY LAWRANCE.
1890 POTTER, HERBERT GEORGE.
1899 POTTER, SHIRLEY HERBERT.

Members who have Passed the Professional Associateship Examination—continued.

1901 POTTIER, GEORGE LEWIS.
1894 POWELL, CHARLES REGINALD EVERNDEN.
1892 PRALL, HERBERT ALEXANDER.
1899 PRATT, FRANK PERCY.
1888 PRESTON, SAMUEL DAVID.
1897 PRICE, CAPEL HEREWARD.
1892 PRICE, RICHARD ARNOLD.
1901 PRIEST, ALBERT EDWARD.
1898 PRIESTMAN, ALFRED TUKE.
1902 PRITCHARD, HENRY (*Daniel Watney Prize*, 1904; *Special Forestry Certificate*, 1904.)
1894 PRITCHARD, HERBERT ALFRED.
1899 PROTHEROE, ALFRED ERNEST.
1895 PROTHEROE, WILLIAM SUDBURY
1889 PUCKRIDGE, PERCIVAL MARTIN.
1903 PUDDICOMBE, WILLIAM PHIPPEN.
1894 PUGH-JONES, DAVID.
1888 PUNCHARD, FREDERICK BURT.
1895 PURVIS, CHARLES JAMES.
1895 PYE, GEORGE HENRY.
1896 PYLE, BENJAMIN THOMAS RICE.

1900 RAFFETY, HAROLD VEZEY.
1892 RAFFETY, HERBERT WILLIAM.
1885 RAND, JOHN.
1902 RANDELL, FRANCIS WILLIAM.
1899 RANSOM, THOMAS REGINALD.
1901 RAWLENCE, JAMES.
1898 RAWSTRON, CHARLES OLIVER.
1903 RAYMOND, JAMES OWEN.
1903 READ, FRANCIS CHARLES JENNINGS.
1894 READ, WALTER HERBERT.
1898 REDFERN, CHARLES FREDK.
1902 REED, CHARLES CECIL,
1903 REED, EDWARD B.
1898 REED, RICHARD GEORGE GORDON (*Special Prize*, 1898).
1901 REES, WILLIAM HAROLD.
1899 REEVE, DOUGLAS WILLIAM.
1896 REFFELL, CHARLES ARTHUR.
1902 RHODES, BEN ALBERT.
1896 RICHARDSON, ARTHUR BAYLIFFE
1899 RICHARDSON, ERNEST EDWARD.
1902 RICHARDSON, HAROLD THOMAS.
1902 RICHARDSON, HENRY.
1891 RICHARDSON, OLIVER ARTHUR.
1896 RICKARDS, ROBERT HILLIER TRAHERNE ANSON.
1899 RIDDETT, MAURICE CHARLES.
1897 RIDLEY, PERCY EDWARD.
1903 RINGLAND, WILLIAM EWART.
1902 RIPPENGAL ARTHUR HENRY.
1896 RIVERS, CHARLES EDWIN.
1898 ROBBINS, WALTER FRANCIS.
1900 ROBERTS, JOHN.
1901 ROBERTS, JOHN.
1898 ROBERTSON, HENRY CHARLES.
1891 ROBINS, PHILIP SEYMOUR.
1887 ROBINSON, ALFRED WHITMORE.
1891 ROBINSON, HENRY HERBERT.
1900 ROBINSON, JOSSLYN ALLEYNE.
1897 ROBINSON, RALPH ETESON.
1897 ROBINSON, THEODORE RICHARD.
1903 ROGERS, FREDERIC JAMES.
1896 ROGERS, HORACE MORDAUNT.
1890 ROGERS, THOMAS GEORGE.
1883 ROLLESTON, WILLIAM GUSTAVUS STANHOPE.
1886 ROODS, ALFRED.
1896 ROOK, JOSEPH TAYLOR.
1888 ROPER, JOHN SIMPSON.
1903 ROSEVEAR, JOHN ASHBURNHAM.
1903 ROWLANDSON, GEORGE ARMSTRONG.
1899 ROWLANDSON, SAMUEL MESSITER.
1889 ROWLEY, WILLIAM TAYLOR.
1886 RUDDLE, FRANK J.
1897 RUDDLE, FREDERICK CHARLES.
1902 RUDDLE, GEORGE WILLIAM.
1883 RUNDLE, EDWARD COLLINS.

Members who have Passed the Professional Associatcship Examination—continued.

1903 RUSH, ARTHUR LESLIE.
1093 RUSSELL, HUMPHREY GLADSTONE.
1899 RUTLEY, ARTHUR DENNETT.
1899 RUTTER, ARTHUR LIONEL.

1903 SACKETT, SIDNEY RUPERT.
1884 SADDLER, GEORGE WILLIAM JUN.
1897 ST. AUBYN, BELVILLE MOLESWORTH.
1902 SAINSBURY, WILLIAM CHARLES.
1894 SAISE, ALFRED JOHN.
1893 SALE, ARTHUR REED.
1903 SALMON, JOSEPH HAROLD.
1897 SALT, HAROLD CROSSLEY.
1901 SALT, LEONARD EUSTACE
1887 SALT, REGINALD NOWELL.
1903 SALWEY, ARTHUR.
1889 SAMPSON, WILLIAM.
1899 SANDAY, WILLIAM HENRY.
1899 SANDELL, STANLEY LUNAU.
1903 SANDERS, FRANCIS LEONARD.
1902 SANDERS, INGALTON.
1895 SANDFORD, CHARLES SIDNEY.
1902 SANDS, HUBERT COVELL.
1902 SANSOM, WILLIE STANLEY VENN.
1883 SATCHELL, CHARLES (*Special Prize*, 1883).
1889 SATCHELL, HERBERT ARNOLD.
1889 SAUNDERS, CHARLES HERBERT.
1900 SAUNDERS, EDGAR WALTER.
1903 SAVAGE, TOM ALBERT.
1890 SAVILL, EDWIN.
1894 SAWYER, JOHN ASHTON.
1900 SCHOFIELD, PETER.
1896 SCOBLE, HERBERT THOMAS.
1894 SCORER, ALFRED GEORGE.
1894 SCOTT, ARCHIBALD LACY.
1903 SCOTT, JOHN.

1895 SCRIVENER, JOHN CHARLES.
1903 SEALE, PERCY JAMES.
1898 SEARLE, SYDNEY.
1896 SECKER, JOHN EUSTACE.
1893 SEIDON, GEORGE FARQUHARSON.
1897 SEDGWICK, ALFRED SIDNEY EDWARD.
1891 SEDGWICK, RUPERT WILLIAM
1897 SEEL, ROBERT HAROLD.
1889 SELBY, FRANK.
1884 SELBY, JOHN BASELY (*Bracketted Special Prize*, 1884).
1898 SELLER, FRANK RUSSELL.
1896 SEXTON, GEORGE ALEXANDER.
1887 SHAW, ARTHUR.
1897 SHEARBURN, HARRY.
1897 SHEARER, JAMES HUGHAN.
1898 SHELDON, HAROLD.
1900 SHETTLE, EDWARD GURNEY.
1901 SHIPWRIGHT, WILLIAM GEORGE.
1902 SHONE, LEIGHTON EDWARD.
1896 SHORNEY, ARTHUR SHEPHERD.
1903 SHOTTON, JOHN SIDWELL.
1895 SHUFFLEBOTHAM, JOHN HENRY.
1897 SIMPSON, LESLIE SHEPHERD.
1894 SKEAT, ARTHUR PERCIVAL.
1895 SKINGLE, ALFRED CHARLES.
1892 SKIPPER, HENRY HERBERT.
1894 SKRIMSHIRE, SAMUEL.
1896 SKUES, CHARLES AYRE MACKENZIE.
1903 SLADDIN, FREDERICK ROBERT EDWIN.
1903 SLADE, JAMES HARCOURT.
1902 SLATER, ARTHUR JAMES.
1890 SLATER, CHARLES FREDERICK.
1893 SLY, JOSEPH TOWNSON.
1896 SLY, WILLIAM.
1902 SMALLEY, WILLIAM.
1894 SMITH, ALEXANDER GEORGE.

Members who have Passed the Professional Associateship Examination—continued.

1902 SMITH, ARTHUR KITSON.
1902 SMITH, ARTHUR TELFORD.
1895 SMITH, CHARLES GORDON.
1902 SMITH, CHARLES PHILIP.
1903 SMITH, CUTHBERT.
1902 SMITH, CYRIL HERBERT.
1899 SMITH, DOUGLAS.
1903 SMITH, DOUGLAS HENRY.
1893 SMITH, FRANK BRAYBROOKE.
1903 SMITH, FRANK HALL.
1888 SMITH, FRANK WILLIAM.
1898 SMITH, GEORGE HENRY.
1903 SMITH, HARRY VINCENT.
1901 SMITH, HUBERT GEORGE.
1903 SMITH, HUGH.
1890 SMITH, JAMES.
1899 SMITH, JOHN AMBROSE.
1901 SMITH, JOHN WILLIAM.
1901 SMITH, QUENTIN CULLEN.
1903 SMITH, SIDNEY WILLIAM.
1897 SMITH, SYDNEY ARTHUR.
1902 SMITH, STANLEY ADDISON.
1895 SMITHELLS, EDWIN.
1890 SNAILUM, WALTER WADMAN.
1897 SNOW, HENRY CYPRIAN.
1901 SOPER, HAROLD.
1897 SOUTHCOMBE, JOHN CHARLES.
1895 SOUTHORN, CHARLES HERBERT.
1891 SOUTTER, ERNEST.
1893 SOWELS, WILLIAM CLOWES.
1902 SPALDING, FRANK EWART.
1903 SPARKE, NORMAN LUSH.
1896 SPARROW, WILLIAM HUGH.
1898 SPEAKMAN, JOHN MCCLURE.
1890 SPELMAN, WILLIAM WILTON RIX.
1901 SPENCE, RICHMOND.
1903 SPENCER, FRANCIS AUGUSTUS.
1903 SPYER, GEORGE.
1897 STACEY, FREDERICK CHARLES WEBSTER.
1889 STAINTON, FRANCIS CHARLES.
1893 STALEY, ALBERT HENRY.
1898 STALLARD, HARROLD ORLANDO.
1895 STANDEN, ARTHUR CARNEGIE.
1897 STANFORD, GEORGE.
1898 STANTON, FREDERICK WILLIAM SCHULTHEISS.
1893 STAPLEDON, ERNEST ALLEN.
1900 STEAD, EDWARD JOHN.
1901 STEDMAN, CHARLES FREDERICK
1903 STEERE, EDWARD CECIL.
1902 STENNING, OSWALD FRANCIS.
1901 STEPHENS, JOHN KYLE.
1903 STEWARD, CLIFFORD THOMAS.
1899 STEWART, GEORGE PAKENHAM.
1903 STEWART, HARRY S.
1900 STEWART, HENRY PAKENHAM.
1903 STEWART, NIGEL DESMOND.
1899 STIMSON, EDWARD FREDERICK.
1897 STIMSON, HERBERT PERCY.
1900 STOCKINGS, ARTHUR PERRY.
1897 STOKES, HUGH CHARLES.
1900 STONE, CYRIL FRANK.
1901 STONE, FREDERIC.
1897 STONEHAM, EDWARD RUSSELL.
1902 STOOKE, JOHN EDWARD HELLYAR.
1896 STRAKER, HOWARD.
1894 STROUTS, LEWIS HERBERT.
1900 STRUDWICK, FRANK EDWARD.
1903 STRUDWICK, PHILIP.
1903 STRUTT, JOHN JAMES.
1896 STUBBING, RICHARD WEBB.
1888 STUCKÉ, WILLIAM HENRY.
1884 STURGE, THEODORE.
1885 STURGESS, JOHN MOORE.
1889 STURLEY, ARTHUR DYSON.
1890 SUMMERFIELD, JOSEPH CHARLES.

Members who have Passed the Professional Associateship Examination—continued.

1901 SURREY, CHRISTOPHER WILLIAM.
1899 SUTCLIFFE, JAMES HENRY.
1898 SUTTON, FREDERICK STANLEY.
1898 SWAN, HARROLD.
1897 SWANWICK, BRUCE.
1887 SWETENHAM, HENRY.
1902 SYMES, WILLIAM CHARLES.
1902 SYMMONS, PERCY JAMES.

1899 TAIT, FRANK VINCENT.
1903 TAIT, WILLIAM IRONSIDE.
1901 TALLBOY, FREDERICK JAMES.
1894 TALLENT, EDWIN JAMES.
1901 TANNER, RUDOLPH.
1901 TANNER, WILLIAM HUGH.
1896 TATE, JOSEPH GEORGE.
1902 TAYLER, VIVIAN ALFRED.
1902 TAYLOR, EDWIN THURLOW.
1889 TAYLOR, HARRY WILLIAM.
1896 TAYLOR, JOHN FRANCIS WHITE.
1903 TAYLOR, JOHN JAMES.
1901 TAYLOR, RUSSELL LEIGH.
1901 TAYLOR, SAMUEL DAVIS.
1900 TAYLOR, WILLIAM HENRY.
1893 TEE, SAMUEL CLIFFORD.
1891 TEMPLE, FREDERICK WILSON.
1901 TERRY, ARTHUR ELLIOTT.
1902 TERRY, ERNEST FAIRCHILD.
1899 TERRY, FRANCIS WILLIAM.
1899 TERRY, FRANK TREACHER.
1893 THEAKSTON, WILLIAM PEASE.
1896 THEOBALD, JOHN MEDOWS.
1898 THOMAS, CHARLES JOHN HOWELL.
1903 THOMAS, ERNEST JAMES.
1899 THOMAS, GEORGE.
1894 THOMAS, ILLTYD.
1902 THOMAS, PERCIVAL HARTLAND.
1902 THOMAS, REGINALD WILLIAM.
1898 THOMAS, WILLIAM JAMES EDGAR.
1894 THOMPSON, CLAUDE WILLIAM GEORGE HUGH.
1893 THOMPSON, FREDERIC HUBERT.
1897 THOMPSON, HAROLD STUART.
1903 THOMPSON, JOHN CLULOW (*Special Forestry Certificate* 1904).
1894 THOMPSON, JOSEPH ATHERDEN.
1894 THOMPSON, ROLAND O'BRIEN.
1901 THORNE, RICHARD SQUIRE.
1903 THORNTON, ARTHUR BRUCE.
1900 THOROLD, JAMES ERNEST.
1894 THRING, DOUGLAS THEODORE.
1891 THURGOOD, ALBERT EDWARD.
1899 THURGOOD, LEONARD FIELDER.
1902 TIDEY, HERBERT GORDON.
1900 TIFFIN, THOMAS EDWARD, A.M.I.C.E.
1899 TIGHE, ARTHUR.
1903 TILLYARD, SIDNEY JOSEPH. (*Institution Prize*, 1903).
1900 TIMBRELL, ALAN.
1901 TITTERTON, SYDNEY GEORGE PENN.
1902 TOMLIN, FRANCIS FERRIER.
1903 TOMLIN, WILLIAM, JUN.
1900 TONSON-RYE, JOHN REGINALD.
1892 TORY, JOHN EDWARD, JUN.
1896 TOWN, HENRY ANNANDALE.
1894 TOWNEND, WILLIAM.
1900 TOWNLY, RONALD STARKEY.
1890 TOWNSEND, GEORGE JAMES.
1883 TREADWELL, HENRY JOHN.
1897 TREHEARNE, ALFRED FREDERICK ALDRIDGE.
1898 TREMLETT, WALTER WILLIAM.
1898 TRENT, WILLIAM EDWARD.
1891 TUCKETT, PERCIVAL FOX.
1897 TURNER, DRYSDALE.
1903 TURNER, ERNEST JAMES.

Members who have Passed the Professional Associateship Examination—continued.

1899 TURNER, HENRY.
1897 TURNER, HERBERT.
1901 TURNER, JABEZ TENNYSON.
1886 TURNER, PERCY.
1900 TURNER, VINCENT.
1889 TYLER, JAMES WILLIAM.
1893 TYLER, WILLIAM.
1899 TYPE, MARCUS OSWALD.

1903 UNDERWOOD, EDWARD.
1900 UPSDALE, ANDREW REED.
1903 UTTERTON, FRANK LE COUTEUR.

1886 VALE, HENRY.
1903 VEALE, LOUIS CHARLES.
1897 VEIT, LEONARD JAMES.
1892 VENNING, ALFRED JOHN MEYBOHN.
1890 VERITY, ERNEST GEORGE.
1902 VICKERS, ALFRED CRANSTOUN.
1903 VIGERS, ASTLEY ALLAN.
1901 VINCE, CLEMENT HARWOOD.
1895 VINTEN, HAROLD BERTRAM.

1900 WACHER, THOMAS BLAKE.
1887 WADE, HENRY.
1889 WAIN, GEORGE SPARROW.
1893 WALDRAM, ROBERT EDWARD.
1903 WALKER, HOWARD JAMES.
1903 WALKER, JAMES WILLIAM BOYD.
1895 WALKER, WILLIAM SELVES.
1903 WALL, IRVING.
1903 WALLACE, HERBERT ALEXANDER CRAIG.
1896 WALLER, HARRY BAINES.
1896 WALLIS, JOHN DAVID.
1900 WALSH, FREDERICK LEOPOLD MORFEE.
1903 WALTER, SYDNEY JAMES.
1900 WALTER, THOMAS JAMES.
1897 WALTON, EDGAR THOMAS.
1900 WALTON, LEON MAITLAND.
1902 WARD, EDWARD JOHN.
1901 WARD, HENRY PAYNE.
1898 WARD, MARTIN HAMMOND.
1898 WARING, HOLT.
1898 WARMINGTON, HERBERT ANDREW CROMARTIE.
1887 WARTON, WILFRED.
1903 WASON, EUGENE MONIER.
1897 WATERFIELD, HORACE CLARE.
1900 WATERS, FRANK.
1890 WATSON, CLAUDE HENRY.
1899 WATSON, DAVID ALEXANDER.
1895 WATSON, HERBERT JOHN.
1884 WATSON, JAMES BRUCE.
1885 WATSON, JOHN.
1893 WATSON, WILLIAM JAMES.
1901 WATT, ALEXANDER LINDSAY.
1902 WATTS, ARTHUR RONALD.
1903 WATTS, ERNEST WILLIAM.
1903 WATTS, FREDERICK SPRING.
1902 WAUGH, REGINALD ROBERT.
1898 WEALL, JOHN GRAHAM.
1892 WEATHERHEAD, DAVID WILKINSON.
1898 WEATHERILL, GEORGE FORD.
1896 WEAVER, HENRY PERCIVAL FRANCIS.
1892 WEBB, FREDERICK NOEL.
1899 WEBBER, HENRY STANTON.
1890 WEBSTER, HUGH CALTHROP.
1898 WEEKES, CYRIL SWAFFER.
1897 WEIR, JAMES SCOTT.
1902 WELLS, ARTHUR HARVEY.
1899 WELLS, FREDERIC BEAUCHAMP.
1892 WELLS, WILLIAM HENRY.
1898 WELSH, HUGH.
1901 WEST, ARTHUR SMITH.
1893 WEST, CHARLES HENRY EDWARD.

Members who have Passed the Professional Associateship Examination—continued.

1899 WEST, HERBERT JAMES.
1900 WEST, SIDNEY HERBERT.
1903 WESTBROOK, CHARLES EDWARD.
1899 WETENHALL, EDWARD BOX, A.R.I.B.A.
1900 WHATLEY, ERNEST JAMES.
1896 WHEATLEY, STEPHEN GLADSTANE.
1903 WHEELER, FRANCIS WEST.
1892 WHEELER, JOHN HENRY.
1900 WHELDON, MARTIN LOWISH (*Driver Prize*, 1900; *Penfold Silver Medal*, 1900).
1901 WHITEHEAD, ERNEST MORTIMER.
1893 WHITAKER, ERNEST VICTOR.
1902 WHITAKER, HUGH,
1902 WHITE, ARTHUR VIVIAN.
1900 WHITE, BENJAMIN WILLIAM.
1895 WHITE, WALT. ERNEST COATES.
1895 WHITE, WILLIAM, JUN.
1899 WHITELEY, CYPRIAN CHARLES OSWALD.
1894 WHITTAKER, JOHN DRONSFIELD
1900 WHITTEN, GEORGE JACKSON.
1902 WHITTINGTON-COOPER, ALFRED.
1902 WHITTON, HAROLD WILLIAM.
1895 WHITTON, PERCY.
1902 WHYTEHEAD, JOHN LAYARD.
1901 WIDDICOMBE, CHARLES EDWIN.
1901 WIGLEY, HERBERT HENRY.
1899 WIGLEY, SIDNEY PRUDDEN.
1896 WIGRAM, HENRY JOSEPH.
1898 WIGRAM, REGINALD SPENCER.
1895 WILDE, SIDNEY ALGERNON.
1901 WILFORD, CECIL MARSHALL.
1903 WILKES, JOHN FISKE.
1902 WILKS, CLEMENT.
1891 WILKS, ERNEST STRINGER.
1899 WILLIAMS, ARTHUR CODRINGTON.
1897 WILLIAMS, DANIEL SMITH.
1902 WILLIAMS, FRANK WARREN.
1903 WILLIAMS, HAROLD.
1894 WILLIAMS, HENRY CUTHBERT.
1898 WILLIAMS, PETER LLOYD ARMSTRONG.
1900 WILLIAMS, RICHARD ERNEST HAVARD.
1893 WILLIS, EDWARD.
1896 WILLOUGHBY, CHARLES ALBERT.
1902 WILLOUGHBY, FRANK.
1903 WILLMOT, ARTHUR CHARLES.
1901 WILSON, EVERARD JOHN.
1896 WILSON, FREDERICK ROBERT.
1891 WILSON, JAMES CULVERT.
1898 WILSON, JOHN.
1892 WILSON, JOHN HAYES.
1896 WILSON, LAWRENCE RICHARD.
1887 WILSON, WILLIAM EDWARD.
1897 WILSON, JAMES PERCY.
1891 WINDLEY, HENRY CHADWICK.
1899 WITHAM, JAMES BERNARD.
1893 WONNACOTT, ERNEST WILLIAM MALPAS.
1901 WONNACOTT, HOWARD JOHN.
1898 WONTNER-SMITH, PERCY.
1890 WOOD, CHARLES BRUCE.
1901 WOOD, HERBERT CALVERT.
1896 WOOD, JOHN EDWARD.
1902 WOOD, JOHN GUY.
1894 WOOD, LESLIE STUART.
1901 WOOD, ROWLAND HARRY.
1899 WOODCOCK, FRANK SYDNEY.
1898 WOOD-MARTIN, HENRY ROGER BROMHEAD.
1892 WOODS, ARTHUR GEORGE.
1886 WOOLNOUGH, JOHN WILLIAM.
1896 WOOLNOUGH, TOM.
1896 WORDSWORTH, CHRISTOPHER.
1887 WORTHINGTON, JAMES SCOTT.
1902 WRIGHT, ARTHUR EDGAR.
1903 WRIGHT, CHARLES LEE.

Members who have Passed the Professional Associateship Examination—continued.

1897 WRIGHT, ERNEST BERESFORD FITZHERBERT.
1894 WRIGHT, PHILIP CHETWOOD.
1899 WRIGHT, THOMAS HENRY.
1901 WRIGHT, WALTER BRERETON.
1897 WRIGHTSON, JOHN FREDERICK HUTTON.
1894 WYATT, ARCHIBALD.
1898 WYATT, HERBERT GUY BUCKELL.
1893 WYLES, JOHN WALTER.
1901 WYLEY, HENRY CHARLES.
1899 YEWDALL, FRANCIS EDWARD.
1902 YOUATT, ERNEST.
1902 YOUNG, C. ALEX.
1891 YOUNG, HARRY AUSTIN LINDSAY.
1902 YOUNG, HERBERT OSWALD.
1898 YOUNG, JAMES DAWBARN.
1900 YOUNG, KENNETH JAMES.
1897 YOUNG, THOMAS JOHN.
1895 YOUNG, WILLIAM.

Members Transferred since the publication of the January List from the Class of Professional Associates to that of Fellows.

BROWN, WILLIAM HENRY	40, Fawnbrake Avenue, Herne Hill, S.E.
BURROUGHES, CHARLES FITZPATRICK	Stoughton Farm, Leicester.
CHESTERTON, FRANK SIDNEY ...	51, Cheapside, E.C.
CROUCH, JAMES LEONARD	29, Basinghall Street, E.C.
DYER, FREDERICK BURFIELD ...	2, St. Andrew's Place, Lewes, Sussex.
ELPHICK, GEORGE PELHAM ...	Foregate Street, Chester.
FOX, WILLIAM	15, Holdenhurst Road, Bournemouth, Hampshire.
HUDSON, ALBERT WILLIAM ...	87, Finsbury Pavement, E.C.
JOHNSTONE, AUGUSTUS FREDERIC	Whitchester, Arundel Road, Eastbourne, Sussex.
LEE-NORMAN, ALEXANDER HENRY	Corbollis, Ardee, Co. Louth, Ireland.
NEILL, JAMES NEILL	38, Park Row, Leeds, Yorkshire.
PALMER, FREDERICK CHARLES RICHARD	H.M. Office of Works, Storey's Gate, S.W.
SAWYER, JOHN ASHTON	62, High Street, Winchester.
SMITH, JOHN AMBROSE	Tatton Dale, Knutsford, Cheshire.
TREMLETT, WALTER WILLIAM ...	Estate Office, Uffington, Stamford, Lincolnshire.
WEALL, JOHN GRAHAM	38, High Street, Watford, Hertfordshire.
WIGLEY, SIDNEY PRUDDEN ...	Winslow, Fenny Stratford, Buckinghamshire.
WILSON, WILLIAM EDWARD ...	Bank of England Chambers, Tib Lane, Manchester.

Members who have Died since the publication of the January List.

FELLOWS:

BEAUMONT, CHARLES	East Bridgford, Nottingham.
BROWN, JOHN POWLES	21, East Street, Hereford.
CASTLE, HAROLD	11, King Edward Street, Oxford.
EMMANUEL, BARROW	2, Finsbury Circus, E.C.
HARDING, SIDNEY LONGHURST...	St. Albans, Hertfordshire.
HOBSON, WILLIAM ROBERT ...	7, Duke Street, Adelphi, W.C.
MATHEWS, GEORGE SPENCER ...	15, Waterloo Street, Birmingham.
NEWMAN, FRANCIS	Ryde, Isle of Wight.
PAIN, WILLIAM, F.R.I.B.A. ...	63, Lincoln's Inn Fields, W.C.
SADLER, GEORGE WILLIAM ...	467, High Street, Cheltenham, Gloucestershire.
SPACKMAN, HENRY	6, Terrace Walk, Bath.
TOOTELL, CHARLES	13, King Street, Maidstone, Kent.
WILDE, WILLIAM	Brockett House, Sharrow, Sheffield, Yorkshire.

PROFESSIONAL ASSOCIATES:

BOWDEN-BUSWELL, FREDERICK	Compton Valence, Dorchester.
CARDALL, FREDERIC WILLIAM	9, Whitehall Place, S.W.
SIMM, ERNEST	Moosomin, P.O., Assiniboia, Canada.
SMITH, ARTHUR PLUMBE	Grosvenor Chambers, Chester.
WELLS, EDWARD OGBOURN ..	9, Whitehall Place, S.W.
WILKINSON, PERCY NEWTON ...	51, Manor Road, Enfield, Middlesex.

List of Provincial Committees.

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(A) NORTHUMBERLAND AND DURHAM COMMITTEE.

Chairman.

JOHN MCCLARE CLARK, Haltwhistle, and Hexham, Northumberland.

ARMSTRONG, THOMAS JOHN	14, Hawthorn Terrace, Newcastle-on-Tyne.
AYNSLEY, ROBERT JOHN ...	Gosforth, Newcastle-on-Tyne.
BRYDON, ROBERT...	The Dene, Seaham Harbour, Durham.
CARR, CUTHBERT ELLISON ...	1, Collingwood Street, Newcastle-on-Tyne.
CLARK, NATHANIEL	Tanfield Hall, Tantobie, R.S.O., Co. Durham.
COCHRANE, WILLIAM JAMES	15, Thornhill Terrace, Sunderland.
CURRY, HENRY JOHN	58, High Street, Stockton-on-Tees.
EADE, ARTHUR W. F.	Branson House, Darlington.
HEDLEY, JOHN HUNT	7, Ashbrooke Terrace, Sunderland.
HINDMARSH, RALPH FREDERICK...	Tyne Improvement Commission, Engineer's Office, Piers Works, South Shields.
JAMES, CHRISTIAN HUGH ...	Rudchester, Wylam-on-Tyne.
MILLER, JOHN EZRA	17, Fawcett Street, Sunderland.
OLIVER, CHARLES EDWARD	Selby Lodge, Consett, Co. Durham.

PEIRSON, HENRY THOMAS ...	Brancepeth, R.S.O., Co. Durham.
RODHAM, JOHN	16, Finkle Street, Stockton-on-Tees.
ROWLANDSON, CHRISTOPHER	The College, Durham.
SAMPLE, CHARLES HERBERT	Matfen, near Newcastle-on-Tyne.
SAMPLE, THOMAS	Bothal Castle, Morpeth, Northumberland.
SAMPLE, WILLIAM COLLINGS	Tritlington Hall, Morpeth, Northumberland.
TAYLOR, HARRY WILLIAM...	St. Nicholas Chambers, Amen Corner, Newcastle-on-Tyne.
TAYLOR, JOHN WALTON ...	St. John Street, Grainger Street West, Newcastle-on-Tyne.
WALKER, FRANCIS ELLIOTT	Swansfield House, Alnwick.
WALL, GEORGE YOUNG ...	Exchequer Buildings, Durham.
WELLS, EDWIN	Barnard Castle, Co. Durham.
WILSON, SIR JACOB	Chillingham Barns, Belford.

Total, 26 Members.

(B) CUMBERLAND AND WESTMORELAND COMMITTEE.

Chairman.

TOM BIRKETT, Foxton House, Penrith, Cumberland.

BANKS, JOHN...	Kendal, Westmoreland.
HAYTON, JOSEPH WILLIAM...	9, Bank Street, Carlisle.
HESKETT, WILLIAM JAMES...	St. Andrew's Churchyard, Penrith, and Viaduct Chambers, Carlisle, Cumberland.
HOGGARTH, ARTHUR	Kendal, Westmoreland.
HOGGARTH, EDWIN	Kendal, Westmoreland.
HOLME, JOHN...	Owlet Ash, Milnthorpe, Westmoreland.
HUDSON, JAMES	Penrith, Cumberland.
LITTLE, WILLIAM	Hutton Hall, Penrith, Cumberland.
POTTS, JAMES...	Estate Office, Workington, Cumberland.
PUNCHARD, FREDERICK ...	Underley Estate Office, Kirkby Lonsdale, Westmoreland.
PUNCHARD, FREDERICK BURT	Fairbank, Kirkby Lonsdale.
RICHARDSON, GEORGE	5, Lonsdale Street, Carlisle.
ROOK, JOSEPH TAYLOR ...	23, Spencer Street, Carlisle.
SLY. WILLIAM	Estate Office, Somerset House, Whitehaven, Cumberland.
STANLEY-DODGSON, STANLEY DICKENSON	Estate Office, Somerset House, Whitehaven. Cumberland.
WATSON, HERBERT JOHN ...	St. Helen's Cockermouth, Cumberland.
WATT, ALEXANDER	Ravenglass, Carnforth.
WEBSTER, ALEXANDER ...	100, Highgate, Kendal, Westmoreland.

Total, 19 Members.

(C) LANCASHIRE AND CHESHIRE.

Chairman.

COARD SQUAREY PAIN, 14, North John Street, Liverpool.

BANCROFT, FREDK. HERBERT	88, Mosley Street, Manchester.
BANKS, THOMAS	90, King Street, Manchester.
BARROW, THOMAS ROBERT...	Post Office Avenue, Southport.
BATEY, HENRY SIMPSON ...	51, King Street, Manchester.
BECKWITH, HENRY LANGTON	3, Cook Street, Liverpool.
BERTWISTLE, JAMES	1, Tackett's Street, Blackburn.
BIRCH, WALTER DE HOGHTON	Hoghton Estate Office, Walton Hall, Preston.
BOWDEN, JOHN	14, Ridgefield, Manchester.
BRADY, CHARLES ALLDIS ...	17, Warren Street, Stockport.
BRADY, RALPH HOLLINSHED	78, Cross Street, Manchester.
BRADY, WILLIAM HOLLINSHED	17, Warren Street, Stockport.
BRIDGFORD, ERNEST JAMES	28, Cross Street, Manchester.
BRIDGFORD, COL. SIR ROBERT, K.C.B.	28, Cross Street, Manchester.
BROCKLEBANK, JOHN	58A, Yorkshire Street, Rochdale.
CAMPBELL, HENRY HUNTER	444, Produce Exchange, Hanging Ditch, Manchester.
CARSWELL, WILLIAM	Capesthorne, Chelford, Cheshire.
CARTWRIGHT, ALFRED STOTT	Council Office, Wilmslow, Cheshire.
CARTWRIGHT, JOSHUA	Peel Chambers, Bury, Lancashire.
COOPE, SAMUEL	24, Mawdsley Street, Bolton.
CROSS, WILLIAM HASLAM ...	77, King Street, Manchester.
DORNING, ARTHUR HARRY ...	41, John Dalton Street, Manchester.
DUNLOP, DUGDALE OAKELEY	57, King Street, Manchester.
EAGLE, WILLIAM	Westminster Buildings, Brown Street, Manchester.
EARLE, THOMAS ALGERNON...	90, King Street, Manchester, and Liverpool.
EARNSHAW, JACOB	78, King Street, Manchester.
ELLIS, FRANCIS	Trafford Park, Patricroft, near Manchester.
ELPHICK, GEORGE PELHAM	Foregate Street, Chester.
FAIR, ARTHUR EDWARD ...	Estate Office, Haigh Hall, Wigan, Lancashire.
FAIR, JAMES STRETTON ...	4, Winckley Street, Preston.
FAIR, THOMAS	Estate Offices, Lytham.
FAIRCLOUGH, WILLIAM ...	Leigh, Lancashire, and 60, King Street, Manchester.
FLETCHER, THOMAS	Dunkenhalgh, Clayton-le-Moors, near Accrington, and 46, Fisher Gate, Preston.
FOWLER, ALFRED MOUNTAIN	1, St. Peter's Square, Manchester.
FOWLER, HENRY	198, Old Street, London, E.C.

GRADWELL, ARTHUR RICHARD	29, Victoria Street, Blackburn.
GREGSON, GEORGE ERNEST...	11, Chapel Street, Preston.
HALL, JOHN HERBERT (*Hon. Sec. Lancashire and Cheshire Provincial Committee*)	6, South St., Albert Sq., Manchester, 2, Durham Road, Altrincham, and Knutsford, Cheshire.
HARGREAVES, STEPHEN ...	Brabyns Estate Office, Manor House, Marple, Cheshire.
HARTLEY, HENRY...	Bristowe Chambers, 8, Harrington Street, Liverpool.
HOLDEN, JOHN...	5, St. James' Square, Manchester.
HOLT, GEORGE HENRY	20, Richmond Terrace, Blackburn.
HOPKINSON, ALFRED	15, Agar Street, Bury, Lancashire.
HURRELL, JOHN WEYMOUTH	25, Brazennose Street, Manchester.
JACKSON, CHARLES	23, Brazennose Street, Manchester.
JONES, ISAAC MATTHEWS ...	The Town Hall, Chester.
JOHNSTON, WALTER HENRY...	County Offices, Preston.
KERR, JOHN MURRAY ...	27, Cresswell Grove, West Didsbury, Manchester.
KIRBY, EDMUND	5, Cook Street, Liverpool.
KIRBY, EDMUND FRANCIS JOSEPH	5, Cook Street, Liverpool.
LANCASTER, CHAS. HOLLAND	Union Offices, Brougham Terrace, West Derby Road, Liverpool.
LARMUTH, GEORGE HORATIO	Wilton Chambers, 10, St. Ann's Square, Manchester.
LINAKER, CHARLES EDWARD	Frodsham, Cheshire.
LOMAS, ALBERT DANIEL ...	Estate Department, Lancashire and Yorkshire Railway, Manchester.
LORING, JOHN...	The Cottage, Doddington, Nantwich.
McCRACKEN, WILLIAM ...	Englesea House, Crewe.
MACIVER, COLIN	23, Bold Street, Warrington.
MAXWELL, FRANCIS WILLIAM	41, Corporation Street, Manchester.
MEADE, THOMAS DE COURCY	The Town Hall, Manchester.
MELLER, WILLIAM GALLOWAY	22, Cooper Street, Manchester.
MILLS, WILLIAM EDWARD ...	57, Hamilton Square, Birkenhead.
MYRES, JOHN JAMES	15, Chapel Street, Preston, and Blackpool.
NESBITT, JOHN OSCAR	12, Limefield Terrace, Levenshulme. Manchester.
NEVETT, FRANCIS WALTER ...	34, Brackenbury Road, Preston.
NEVETT, THOMAS	41, Fishergate, Preston.
NUTTALL, HERBERT	20, Market Street, Bury, Lancashire.
PARK, PHILIP	Altadore, Preston.
PARKER, THE HON. CECIL THOMAS	Eccleston, Chester.
PARMETER, FRANK	Middle Lees, Clitheroe.
PIERSON, CHARLES	29, Cooper Street, Manchester.
REA, JOHN MARCUS BEAUMONT	8, Winckley Street, Preston.

ROBINSON, GEORGE EDWARD	9, Tackett's St., Blackburn, and Clitheroe Castle.
ROPER, JOHN SIMPSON	32, Market Square, Lancaster.
SECKER, JOHN EUSTACE ...	Estate Office, Warrington.
SHELMERDINE, HENRY	Estate Offices, L. & Y. Railway, Hunt's Bank, Manchester.
SMITH, JOHN AMBROSE ...	Estate Office, Tatton Park, Knutsford, Cheshire.
SMITH, JOHN THOMPSON ...	Tattondale, Knutsford, Cheshire.
TAYLOR, THOMAS WALTERS...	25, Brazennose Street, Manchester.
THOMAS, GLEGGE	Cheshire Lines Committee Central Station, Liverpool.
THOMPSON, FRANCIS WILLIAM	18, Wood Street, Bolton.
WAINWRIGHT, THOMAS TAYLOR	13, Union Court, Castle Street, Liverpool.
WALLIS, JOHN DAVID	57, King Street, Manchester.
WATTS, SAMUEL LINGARD ...	40, South King St., Cross St., Manchester.
WHALLEY, HENRY SHAW ...	3, Hunter Street, Town Hall Sq., Chester.
WHITE, JOHN	Warrington, Lancashire.
WILSON, LAWRENCE RICHARD	Bank of England Chambers, Tib Lane, Manchester.
WILSON, THOMAS SILK... ...	Bank of England Chambers, Tib Lane, Manchester.
WILSON, WILLIAM EDWARD	Bank of England Chambers, Tib Lane, Manchester.
WILSON, WILLIAM HENRY ...	29, Fountain Street, Manchester.
WOLFENDEN, THOMAS	54, Hall Street, Southport.
WRENNALL, WILLIAM	9, Harrington Street, Liverpool.
YOUNG, EDWARD HERBERT...	Imperial Buildings, 20, Exchange Street East, Liverpool.
YOUNG, OSWALD WILLIAM ...	Mersey Docks and Harbour Board, Liverpool.
YOUNG, THOMAS JOHN	Agricultural College, Holmes Chapel, Cheshire.

Total, 94 Members.

(D) YORKSHIRE COMMITTEE.

Chairman.

THOMAS WINN, 92, Albion Street, Leeds.

ABBEY, JOE BURMAN	31A, New Street, Huddersfield.
ABBOTT, ROBERT THOMAS G.	Whitley House, Malton.
AMBLER, SYDNEY WOOD ...	Estates Office, Sandbeck Park, Tickhill, near Rotherham.
ARMISTEAD, RICHARD	8, Charles Street, Bradford.
ARMYTAGE, SIR GEORGE, BART.	Kirklees, Brighouse.

BEARD, EDWIN THOMAS ...	4, The Crescent, Scarborough.
BIGG, LIONEL THURSFIELD ...	Marske-by-the-Sea, R.S.O.
BILSON, JOHN	23, Parliament Street, Hull.
BOWMAN, JOHN JAMES... ...	Helmsley R.S.O.
BRADLEY, WILLIAM EDWARD	The Hall, Ebberston, York.
BRODRICK, FREDERICK STEAD	York Chambers, Lowgate, Hull.
BROSTER, ROBERT BUCK ...	Craven Bank Chambers, North St., Keighley.
BUCKLEY, GEORGE	Tower Chambers, Halifax.
BUTLER, CHARLES...	14, Queen Street, Huddersfield.
CLARE, EDWARD LOVELL ...	37, Park Square, Leeds.
CLARKE, CHRISTOPHER ...	Charlcot, Bedale.
CLARKE, JOHN WILLIAM ...	Guisborough.
COVERDALE, HENRY	The Duke of Norfolk's Estates' Offices, Sheffield.
COWGILL, BRIAN BOLLANS HIRD	13A, Piece Hall Yard, Bradford.
COX, EDWARD SAMUEL... ...	3, New Street, York.
DEMETRIADI, THOMAS MARSDEN	28, John William Street, Huddersfield.
DENTON, WILLIAM...	Montgomery Chambers, Hartshead, Sheffield.
EVANS, WILLIAM	New Walk, Beverley.
FARRER, JOHN	Oulton, near Leeds.
FAWCETT, JOHN MORTIMER	26, Albion Street, Leeds.
FENWICK, THOMAS	Leeds.
FORBES, CHARLES MANSFELDT	14, New Street, York.
FOWLER, FREDERICK	St. James' Street, Sheffield.
FOWLER, REGINALD WILLIAM	3, Hartshead, Sheffield.
FOX, CHARLES JAMES	7, Rawson Street, Halifax.
FRANCE, ARTHUR ALDERSON	99, Swan Arcade, Bradford.
FRYER, GEORGE	Conservancy Buildings, Whitefriar Gate, Hull, and Rose Villa, Bishop Wilton, near York.
GOTT, CHARLES	8, Charles Street, Bradford.
GOTT, CHARLES HENRY ...	8, Charles Street, Bradford.
GOTT, FRANK	3, East Parade, Leeds.
GREAVES, JOHN OLDROYD ...	69, Westgate, Wakefield.
GREGSON, WILLIAM	Baldersby, S.O.
HANSON, JOHN HENRY	20, Ramsden Street, Huddersfield.
HEBBLETHWAITE, LOUIS ...	Conservancy Buildings, and Anlaby Road, Hull.
HEPPER, JOHN	East Parade, Leeds.
HEWITT, FREDERIC THOMAS BAINES...	Almora House, Prince's Avenue, Hull.
HINDLE, JOHN...	24, Bank Street, Bradford.
HOBSON, HARRY	Swinefleet, near Goole.
HOLLIS, WALTER DAWSON ...	26, Park Row, Leeds.

HORSFALL, RICHARD	22A, Commercial Street, Halifax.
HORSFALL, RICHARD EDGAR	22A, Commercial Street, Halifax.
JACKSON, BENJAMIN WHITEHEAD	Elcho House, Halifax.
JOLLY, JOHN HAWKINS ...	1, Dalton Terrace, The Mount, York.
KAYE, JOHN EDWARD	Bretton Lodge, Wakefield.
KELLY, JOHN GEORGE	West View, Pontefract.
LEATHER, GEORGE HERBERT	Central Bank Chambers, Leeds.
LEATHER, WILLIAM BEAUMONT	The Hollies, Leeds.
LOFTHOUSE, ALBERT WILSON	62, Albert Road, Middlesborough.
MARRIOTT, ARTHUR SUTCLIFFE	West Park Street, Dewsbury.
MARSHALL, PETER	3, Hartshead, Sheffield.
MASSIE, FRANK	Tetley House, Kirkgate, Wakefield.
NEILL, JAMES NEILL	38, Park Row, Leeds.
OLDROYD, LINLEY	Holm Lea, Cromwell Road, Scarborough.
PEIRSON, GEORGE BRODRICK	Baldersby, S.O.
PIERCY, HENRY ONSLOW ...	The Elms, Lowthorpe.
POPPLE, JOHN...	19, St. Hilda's Terrace, Whitby.
RENTON, GEORGE	1, Albert Street, Harrogate.
RICHARDSON, JOHN	Well Royd, Rawdon, Leeds.
SAMPSON, WILLIAM	Beauchief Abbey, Sheffield.
SANDFORD, CHARLES SIDNEY	16, St. James Row, Sheffield.
SILCOCK, EDWARD JOHN ...	10, Park Row, Leeds.
SMITH, FREDERIC ELLISON...	Tanfield Chambers, Bradford.
SMITH, HARRY RUSSELL ...	Exchange Buildings, Bradford.
SMITH, WHEATER...	15, Cheapside, Bradford.
SUTCLIFFE, JAMES HENRY ...	Hazelwood, Hebden Bridge.
SUTHERS, JAMES	Union Offices, Hull Street, Todmorden.
THORP, ROBERT	Land of Green Ginger, Hull.
TODD, WILLIAM HENRY ...	County Buildings, Hull.
TOWNEND, WILLIAM	The Croft, Crossgates, near Leeds.
WATSON, JOHN	Cogan Chambers, Bowlalley Lane, Hull.
WATSON, JOHN.	Wentbridge Lodge, Pontefract.
WEATHERILL, GEORGE FORD	Farnley, Otley.
WELLSTED, WILLIAM HENRY	Prince's Dock Chambers, Hull.
WHITE, ALFRED EDWARD ...	Town Hall, Hull.
WOODHEAD, WILLIAM BOOTH	18, Exchange Buildings, Bradford.
WRIGHT, JAMES	Rawcliffe, near Selby.

Total, 82 Members.

(E) SALOP AND HEREFORD COMMITTEE.

Chairman.

HENRY JAMES WYLEY, Bridgnorth, Salop.

ASHDOWN, AUGUSTUS HARDING	Uppington, near Wellington, Shropshire.
BATHER, JOHN T....	9, The Square, Shrewsbury.
BURD, TIMOTHEUS HENRY ...	School Gardens, Shrewsbury.
CARNELL, SYDNEY GEORGE	Estate Office, Condover, Shrewsbury.
CHICHESTER, RICHARD HERBERT	Cheswardine, Market Drayton, Salop.
DAVIS, ALFRED THOMAS ..	Shire Hall, Shrewsbury.
DODGSON, WILFRED LONGLEY	5, Mill Street, Ludlow.
EVANS, WILLIAM ERNEST ...	School Gardens, Shrewsbury.
FENN, ANDREW THOMAS CRANAGE	The Lodge, Bromfield, Shropshire.
FENN, THOMAS	Downton Castle, Ludlow.
GODSELL, GEORGE HERBERT	Palace Chambers, King Street, Hereford.
HALL, WILLIAM TIMOTHY ...	College Hill, Shrewsbury.
HAYWOOD, WILLIAM MATHEWS	9, West Street, Hereford.
HICKMAN, THOMAS	College Court, Shrewsbury.
HUNT, GEORGE WHITAKER ...	Estate Office, Holme Lacy, Hereford.
MILLYARD, JOHN WILLIAM	Estate Office, Saltmarshe Castle, Bromyard.
MORRIS, EDWARD HENRY ...	Chirbury, Salop.
MORRIS, WILLIAM HENRY...	Monksfield, Chirbury, Salop.
NEWILL, ROBERT HENRY ...	Lydbury North, Shropshire.
OWEN, HENRY	Dana Chambers, Shrewsbury.
PALAMOUNTAIN, JOSEPH WILLIAM	Cloverley Estate Office, Whitchurch, Salop.
PARKER, JOHN	Mansion House, Hereford.
PEACE, JOHN CHALMERS ...	The Villas, Meole Brace, Shrewsbury.
THURSFIELD, THOMAS HOWELLS	The Grange, Much Wenlock, Salop.
TOWER, BROWNLOW RICHARD CHRISTOPHER	Bridgewater Estate Office, Ellesmere, Salop.
WOLLEY, THOMAS JOHN ...	Clungunford Estate Office, Aston-on-Clun, Salop.
WYLEY, WILLIAM JOHN ...	2, School Chambers, Shrewsbury.

Total, 28 Members.

(F) DERBY AND STAFFORD COMMITTEE.

Chairman.

JOHN SHAW, JUN., The College, All Saints', Derby.

ARNOLD, WILLIAM...	6A, George Street, Tamworth.
BARNES, GEORGE FREDERICK	5, New Square, Chesterfield.
BOOTHBY, HENRY VERNON...	Estate Office, Keele, & Newcastle-under-Lyne.
BRAILSFORD, HENRY	Park Nook, near Derby.
BRUCE, ROBERT KNIGHT ...	Hathersage, by Sheffield.
BURTON, AMOS	Borough Engineer, Town Hall, Stoke-upon-Trent.
BYRON, AUGUSTUS WILLIAM	Bath House, Derby Road, Chesterfield.
DUNCALFE, HENRY GEORGE	81, Darlington Street, Wolverhampton.
FODEN, EDWARD ANTROBUS	Teddesley Estate Office, Penkridge.
FORSHAW, EDWARD	Hanley, Staffordshire, and Springfields, Stramshall, Uttoxeter.
FULLER, THOMAS ALFRED ...	The College, All Saints', Derby.
HARDY, RICHARD THOMAS ASH	Land Agency and Estate Offices, Carter Street, Uttoxeter.
HARRISON, CHARLES	179, Horninglow Street, Burton-on-Trent.
HARRISON, JOHN EDWARD ...	Estate Office, Allestree, near Derby.
HEATON, GEORGE HERBERT	Endon, near Stoke-upon-Trent.
HOOLEY, ARTHUR JOHN ...	The College, All Saints', Derby.
HUBBERSTY, HENRY ALFRED	Buxton, Derbyshire.
HUSSEY, ROBERT	Eastfields, near Lichfield.
INGE, CHARLES HENRY ...	Broom Leasoe, Whittington, Lichfield.
JEUDWINE, WILLIAM WYNNE	Chesterfield.
LONGSDON, ERNEST MOREWOOD	Town Hall, Bakewell.
LYNAM, CHARLES	Stoke-on-Trent.
MARGERESON, CHARLES FREDERICK..	New Square, Chesterfield.
MARTIN, GILSON	Chatsworth, Chesterfield.
MAY, THOMAS HENRY... ...	Haslin House, Harpur Hill, Buxton.
NOCK, BENJAMIN BOWEN ...	48, Queen Street, Wolverhampton.
ORR, CECIL	71, Otter Street, Derb
PEARSE, OCTAVIUS BURROUGHES	The Bourne, Tettenhall, Wolverhampton.
ROWLAND, JOSEPH SAMUEL...	19, Station Street, Burton-on-Trent.

SAMPSON, GEORGE...	Beauchief Abbey (near Sheffield), Derby.
SHAW, JOHN	College Place, Derby.
TOMLINSON, THOMAS	2, St. James's Street, Derby.
THORPE, CHRISTOPHER ...	Fairfield, Brimington, Chesterfield.
TURNOR, EXSUPERIUS WESTON	The Green, Stafford.
WINTERTON, HARRY JOHN CAMPION	St. Mary's Chambers, Lichfield.
WINTERTON, WILLIAM MOXON	Walton Warren, Burton-on-Trent.

Total, 37 Members.

(G) NOTTINGHAM AND LINCOLN COMMITTEE.

Chairman.

CHARLES WILLIAM WRIGHT, 21, Parkinson Street, Nottingham.

ABBOTT, WILLIAM	Holbeach, Lincs.
BAILEY, WILLIAM SMITH ...	4, Kirkgate, Newark-upon-Trent.
BARNES, JOHN WILLIAM JAMES	Albion Chambers, King Street, Nottingham.
BELL, JOSEPH ASKEW	Rufford Estate Office, Ollerton, Notts.
BOOKER, FRANK WILLIAM ...	7, Albion Chambers, King Street, Nottingham.
BRACKETT, WM. NEWBEGIN	Market Place, Retford.
CALVERT, ARTHUR RICHARD	14, Low Pavement, Nottingham.
CORBY, JOSEPH BOOTHROYD	15, All Saints' Place, Stamford.
CRAMPTON, ARTHUR WESLEY	The Park, Mansfield, Notts.
CROFTS, EWAN NEVILLE ...	Caythorpe, Grantham, Lincs.
EVANS, ROBERT	Eldon Chambers, Wheeler Gate, Nottingham.
HAWLEY, SIR HENRY MICHAEL, BART.	Tumby Lawn, Boston.
HAYNES, HENRY	Estate Office, Clifton, Nottingham.
HIGGINS, FREDERIC	Alford, Lincs.
HINE, GEORGE THOMAS ...	Victoria Street, Nottingham.
HUSKINSON, THOMAS WM. ...	Epperstone Manor, Nottingham.
HUSKINSON, WILLIAM LAMBE	Manor House, Epperstone, Notts.
KINGSTON, SAMUEL	Spalding, Lincolnshire.
LEGARD, DIGBY CHARLES ...	Highington Hall, Lincoln.
LISTER-KAYE, CHARLES WILKINSON	Osberton, Worksop, Notts.
MANNERS, HENRY ALFRED	23, St. Peter's Hill, Grantham.
MASON, CHARLES	Westgate, Louth, Lincs.

MORRIS, CHARLES	The Lodge, Radcliffe-on-Trent, Notts.
PARKIN, WILLIAM	Babworth, Retford, Notts.
RICHARDSON, CHARLES ...	15, Barn Hill, Stamford, Lincolnshire.
RICHARDSON, JAMES	15, Barn Hill, Stamford, Lincolnshire.
TINDALL, CHARLES WILLIAM	Wainfleet, R.S.O., Lincolnshire.
TREMLETT, WALTER WILLIAM	Estate Office, Uffington, Stamford.
TURNER, FREDERICK JOHN...	Mansfield Woodhouse, Notts.
TURNER, THOMAS WARNER...	Welbeck Abbey, Worksop, Notts.
TURTON, EDWARD JAMES ...	Horkstow, Barton-on-Humber, Lincolnshire.
VALLANCE, ROBERT FRANK...	Mansfield, Notts.
WALKER, GEORGE BOOTH ...	Wainfleet, R.S.O., Lincolnshire.
WALKER, HERBERT	Albion Chambers, King Street, Nottingham.
WALKER, JOSEPH...	Lenton Avenue, The Park, Nottingham.
WALKER, JOSHUA	Market Place, Retford, Notts.
WIGRAM, JOHN	South Collingham, Newark, Notts.
WOOLLEY, REGINALD	Silver St., Lincoln, & South Collingham, Nottinghamshire.
WOOLLEY, T. CECIL SMITH	South Collingham, Newark, Notts.
WORDSWORTH, ROBERT WALTER	Whitemoor, Ollerton, Nottinghamshire.

Total, 41 Members.

(H) MONMOUTHSHIRE AND SOUTH WALES COMMITTEE.

Chairman.

ROBERT FORREST, Windsor Estate Office, St. Fagan's, near Cardiff.

ADDIE, JOHN HEATHCOTE ...	Estate Office, Llanover, Abergavenny, Monmouthshire.
BLAKE, GEORGE	Stradey Estate Office, New Road, Llanelly.
BLOSSE, EDWARD F. LYNCH	Porthcawl, Bridgend.
COLES, SAMUEL HOOD COWPER	Penmyarth, Crickhowell, South Wales.
CORBETT, EDWARD WORTLEY MONTAGUE	Bute Estate Office, Castle Street, Cardiff.
DAVID, EDMUND USSHER ...	Old Bank Chambers, 27, High Street, Cardiff.
DAVIES, CYRIL FROODVALE...	10, Spilman Street, Carmarthen.
DAVIES, JOHN MORGAN ...	Froodvale, Llanwrda, South Wales.
EVANS, ARTHUR OWEN ...	Town Hall, Pontypridd.
GRAHAM, ARTHUR GORE ...	Brookfield, Abergavenny, Monmouthshire.
GRAHAM, WILLIAM	Bank Chambers, Newport.

GRIFFITHS, WILLIAM	Gelley Wernen Estate, Llanelly, Carmarthenshire.
HARPUR, WILLIAM	Town Hall, Cardiff.
HERN, SAMUEL	93, St. Mary Street, Cardiff, Glamorganshire.
HITCHCOX, WILLIAM	Bank Chambers, Newport.
HOSKINS, MARCUS	Council Offices, Mumbles, Glamorganshire.
LEEDER, ERNEST HOLTHAM	46, Waterloo Street, Swansea.
LLEWELLIN, DAVID MORGAN	Glanwern Offices, Pontypool.
OWEN, THOMAS HENRY RULE	High St., Haverfordwest, Pembrokeshire.
OWEN, THOMAS RULE	High St., Haverfordwest, Pembrokeshire.
PRICE, FRANCIS HOLBORROW GLYNN	7, Picton Place, Swansea.
PRITCHARD, HERBERT ALFRED.	The Laurels, Swansea.
PUGH-JONES, DAVID	Hawthorn, Llandaff, Glamorganshire.
REES, ITHEL TREHARNE ...	Guildhall Chambers, Cardiff.
REES, WILLIAM GEORGE ...	Holly House, Newport.
REES, WILLIAM JOHN	The Laurels, Swansea.
RIGG, CHARLES	24, High Street, Cardiff.
ROONEY, SAMUEL	Cefn Mably Chambers, Quay St., Cardiff.
SEEL, ROBERT HAROLD ...	Theatre Royal Chambers, Cardiff, Glamorganshire.
TANNER, WILLIAM	The Leys, Bryngwn Road, Newport.
THOMAS, CHARLES JOHN HOWELL	The Guildhall, Swansea, Glamorganshire.
THOMAS, GEORGE	Queen's Chambers, Cardiff.
THOMAS, ILLTYD	17, Quay Street, Cardiff.
WARING, CHARLES EDWARD	Conservative Club, Cardiff.
WHITTEN, GEORGE JACKSON	Flint House, Tenby, South Wales.
WILKINS, WILLIAM	Athenæum Square, Llanelly.
WILLIAMS, GERALD GARNONS	Ashburnham Estate Office, Burry Port, R.S.O., Carmarthenshire.

Total, 38 Members.

(l) WARWICK AND WORCESTER COMMITTEE.

Chairman.

THOMAS GRIMLEY, 40, Temple Street, Birmingham.

ALLSEBROOK, ARTHUR	Estate Office, Madresfield, Malvern.
BETTRIDGE, EDWARD	28, Waterloo Street, Birmingham.
BICKERTON - WILLIAMS, EDWARD	City Chambers, 82, New St., Birmingham.
BUCK, ALBERT	Worcester.
BUCK, HERBERT WILSON ...	Pierpoint Street, Worcester.
CAVE, HENRY H.	Estate Office, Rugby.

CHAMBERLAIN, GEORGE ARTHUR RADDON	Whitegates, Enville, near Stourbridge.
CLARKE, ALFRED DUDLEY ...	Estate Office, Abberley, Stourport.
COUCHMAN, ROBERT EDWARD	35, Paradise Street, Birmingham.
DAWSON, GEORGE CROSBIE...	Daisyfield, Nuneaton.
DEER, EDWARD	Stratford-on-Avon.
EAYRS, JOHN THOMAS ...	Clarence Chambers, Corporation Street, Birmingham.
EVANS, WALTER PEARSON ...	Emscott House, Leamington.
FAYERMAN, GEORGE METCALFE	88, The Parade, Leamington.
FIDDIAN, WILLIAM	Old Bank Offices, Stourbridge.
FOSBERY, WILLIAM THOMAS EXHAM...	Warwick.
FOWLER, GERARD EDMUND	21, Waterloo Street, Birmingham.
FOWLER, HENRY	6, Waterloo Street, Birmingham.
FOWLER, RICHARD	118, Colmore Row, Birmingham.
FOWLER, WILLIAM	69, Temple Row, Birmingham, and Sutton Coldfield.
GILPIN-BROWN, WILLIAM DUNDAS	Estate Office, Stoneleigh Abbey, Kenilworth.
GRIMLEY, EDWIN FEARNE ...	40, Temple Street, Birmingham.
HADLEY, FRANK	134, Edmund Street, Birmingham.
HEDLEY, ROBERT WILKIN ...	31A, Colmore Row, Birmingham.
HENDRIKS, HENRY	43, Cannon Street, Birmingham.
HOLBECHE, ROBERT NEVILLE	21, Bennett's Hill, Birmingham.
JENKINS, OSWALD	57, Colmore Row, Birmingham.
JOSELAND, CHARLES	Bank Buildings, Kidderminster.
KENWRICK, GEORGE	83, Colmore Row, Birmingham.
KING, HENRY	Stourbridge.
LAKIN-SMITH, ERNEST	21, Waterloo Street, Birmingham.
LUDLOW, WALTER ROBERT	Dorridge, Knowle, Warwick, and 18, New Street, Birmingham.
MARGETTS, JOHN WILLIAM ...	12, High Street, Warwick.
MASON, WILLIAM ARTHUR ...	31A, Colmore Row, Birmingham.
MATHEWS, LEWIS OSLER ...	15, Waterloo Street, Birmingham.
PARKER, WILLIAM HENRY ...	3, Foregate Street, Worcester.
PEMBERTON, CHARLES OLIVER PAGET	69, Temple Row, Birmingham.
PINNEY, FREDERICK WYLDBORE DIGBY	6, Waterloo Street, Birmingham.
PRICE, JOHN	The Council House, Birmingham.
RAIKES, GEORGE WHITTINGTON, COLONEL	Ragley Estate Office, Alcester.
RIGHTON, EDWARD GRANTHAM	High Street, Evesham, Worcestershire.
ROBINS, WILLIAM HENRY ...	82A, New Street, Birmingham.

RODERICK, JOHN	2, Temple Row, West Birmingham.
SAYER, GEORGE WILLIAM ...	Royal Engineer Office, The Barracks, Great Brook Street, Birmingham.
SMITH, FRANK	104, Colmore Row, Birmingham.
SMITH, FRANK WILLIAM ...	Beauchamp Hill, Milverton, Leamington.
SMITH, WILLIAM	Abbott's Salford, Evesham.
SOUTHORN, CHARLES HERBERT	38, The Parade, Leamington Spa, Warwickshire.
STALLARD, WILLIAM	St. John's House, St. John's, Worcester, and Worcester Chambers, Worcester.
STEWART, SAMUEL PARR ...	Arbury, Nuneaton.
WILLMOT, GEORGE DYOTT ...	6, Waterloo Street, Birmingham.
WILLMOT, JOHN	6, Waterloo Street, Birmingham.

Total, 53 Members.

(J) LEICESTERSHIRE, NORTHAMPTONSHIRE, AND RUTLAND COMMITTEE.

Chairman.

WILLIAM GUSTAVUS STANHOPE ROLLESTON, Grey Friars, Leicester.

ARIS, JOHN WHITTON	Loys Weedon House, near Towcester, Northamptonshire.
BLETSOE, HENRY HOPKINSON	Thrapston, Northamptonshire.
BOLAM, CHARLES GODFREY	Chesham House, Kettering, Northamptonshire.
BURROUGHES, CHARLES FITZPATRICK	Stoughton Farm, Leicester.
CAMPBELL, HUGH BRUCE ...	Cottesbrooke, Northampton.
CAVE, THOMAS NEWMAN ...	Horton, Northampton.
CLARE, EDWARD LOVELL ...	33, Friar Lane, Leicester.
CLOUGH-TAYLOR, HORACE GEORGE	Friar Lane, Leicester.
COALES, HERBERT GEORGE ...	Local Board Offices, Market Harborough.
DICKSON, THOMAS ARTHUR	Estate Office, Overstone Park, Northampton.
DRAPER, ARTHUR THOMAS	39, Friar Lane, Leicester.
EDMONDS, JOHN	Drayton Estate Office, Islip, Thrapston, Northamptonshire.
EVERARD, JOHN BREEDON ...	6, Millstone Lane, Leicester.
FISHER, CHARLES BROWNING	Hill Crest, Market Harborough.
GERMAN, GEORGE	Packington House, Ashby-de-la-Zouch.
GERMAN, HARRY	Market Street, Ashby-de-la-Zouch, and Loughborough.
GERMAN, JOHN	Ashby-de-la-Zouch.
GERMAN, JOHN, JUN.	Huntingdon House, Ashby-de-la-Zouch.

GOODACRE, JOHN	5, Friar Lane, Leicester.
GOTTO, FREDERICK EDWARD	Northampton.
HAIGH, THOMAS FREDERICK	2, Friar Lane, Leicester.
HAMPTON, WILLIE THOMAS ...	Swan Street, Loughborough.
HARRISON, FREDERICK ...	3, Welford Road, Leicester.
HINCKS, HENRY THORP ...	Wigston Hall, Leicester.
HODSON, GEORGE	Town Hall, Loughborough.
HOLLOWAY, HARRY HOWNAM	Market Harborough.
HUMPHREYS, HENRY	Woodhouse, Loughborough.
HUMPHREYS, JOHN HENRY ...	Woodhouse, Loughborough.
JOYCE, JOHN HALL	Blackfordby, Leicestershire, near Burton-on-Trent.
LAWRANCE, JOHN	Shortacre, Peterborough.
MARTIN, ROBERT FREWIN ...	Mountsorrel, Loughborough.
MERRY, THOMAS	2, Guildhall Road, Northampton.
PERKINS, JOSEPH	Frisby-on-the-Wreake, Leicester.
ROLLESTON, SIR JOHN FOWKE LANCELOT	Grey Friars, Leicester.
ROYCE, DAVID NEEDHAM ...	Oakham.
ROYCE, JOHN	Oakham.
SEBASTIAN-SMITH, CHARLES	Friar Lane, Leicester.
SCRIVEN, RICHARD GEORGE...	Castle Ashby, Northampton.
THORPE, JOHN	Nailstone, Nuneaton.
THORPE, WILLIAM...	Nailstone, Nuneaton.
THRING, DOUGLAS THEODORE	Boughton House, near Kettering, Northamptonshire.
WADE, GEORGE TEMPEST ...	Halford Street, Leicester.
WOODFORDE, LIONEL BURNET	Milton Ferry, Peterborough.
WOOLLEY, WILLIAM EDWARD	The Red House, Loughborough.

Total, 45 Members.

(K) CAMBRIDGE, HUNTINGDON, NORFOLK, AND SUFFOLK COMMITTEE.

Chairman.

WILLIAM HERBERT SALTER, The Hall, Attleborough, Norfolk.

BACON, FRANK MACE	Attleborough, Norfolk.
BACON, HORACE	Attleborough, Norfolk.
BECK, ARTHUR CLEMENT ...	Wyton Manor, Huntingdon.
BECK, EDWARD WILLIAM ...	16, Bank Street, Norwich.
BIDWELL, CHARLES	Ely, Cambridgeshire.
BIDWELL, JOHN EVANS... ...	10, Barton Road, Cambridge.

BIDWELL, PHILIP SHELFORD	St. Mary's Street, Ely, Cambridgeshire.
BIRD, JOHN	Brampton, Huntingdon.
BLENCOWE, GEORGE	Bury St. Edmund's.
BOA, ANDREW...	Great Thurlow, near Newmarket.
CHALK, HENRY PHILIP... ...	Linton, Cambridgeshire.
DONNE, HENRY	The Abbey Ruins, Bury St. Edmund's.
FALCON, MICHAEL...	Horstead House, Norfolk.
FREUER, WILLIAM...	West Rudham, King's Lynn.
GARRARD, NORTON BURROUGHS	Cranley Hall, Eye.
GAYFORD, HENRY JOHN ...	Estate Office, East Raynham, Norfolk.
GAZE, THOMAS WILLIAM ...	Frenze Hall, Diss, Norfolk.
GRAIN, ARTHUR TRESS ...	2, St. Andrew's Hill, Cambridge.
HAWKINS, CHARLES	Downham Market, King's Lynn.
HAWKINS, LANCELOT GOULDER	Downham Market, Kings' Lynn.
HORNOR, CHARLES JARED ...	32, Prince of Wales Road, Norwich.
HORNOR, FRANCIS...	Queen Street, Norwich.
IRELAND, EDWIN BENJAMIN	Guestwick, East Dereham.
JONAS, HARRY MARSHALL ...	27, Market Place, Cambridge.
LLOYD, DONALD	63, Sidney Street, Cambridge.
LOOKER, JOHN...	High Street, Huntingdon.
MAXWELL, DAVID BENJAMIN	Shrubland Park, Coddenham, Ipswich, Suffolk.
MILLS, SAMUEL MEALING ...	Orford Hill, Norwich.
MORGAN, BENJAMIN BRAUFORD	6, Bank Street, Norwich.
MOYES, JOHN HELENUS ...	66, St. Andrew's Street, Cambridge.
PELLS, ARTHUR	Beccles and Lowestoft.
PEPPERCORN, J. HUTCHINSON	Manor House, Eaton Socon, St. Neot's.
PREEDY, FREDERICK	Caldecote, St. Neot's.
RIX, GEORGE KERRY	Somerleyton, near Lowestoft.
ROSE, THOMAS	21, Prince of Wales Road, Norwich.
SCOTT, ARCHIBALD LACY ...	Long Melford.
SCOTT, AUGUSTUS FREDERIC	24, Castle Meadow, Norwich.
SCOTT, HENRY LACY	Bury St. Edmund's.
SCRUBY, WILLIAM THOMAS...	Post Office Terrace, Cambridge.
SIMPSON, ROBERT THOMAS...	Horsecroft, Bury St. Edmund's.
THEAKSTON, WILLIAM PEASE	Huntingdon.
WILKIN, HORACE MARTIN ...	King's Lynn.
WRIGHT, WILLIAM EDWARD...	King's Lynn.

Total, 44 Members.

(L) BERKS, BUCKS, AND OXON. COMMITTEE.

Chairman.

WILLIAM ANKER SIMMONS, Henley-on-Thames.

ADKIN, CHARLES DUNCAN ...	Wantage, Berks.
BAILEY, LOUIS HEWITT ...	Athenæum Buildings, Friar Street, Reading.
BELCHER, EDWARD JOHN ...	Wantage, Berkshire.
BINGHAM, ALFRED JOHN ...	Nalder Hill House, Newbury.
BUCKLAND, FRANK BOWRY	Windsor.
BUTLER, ALBERT ERNEST ...	20, Blagrave Street, Reading.
CASTLE, ARTHUR	9, Canterbury Road, Oxford.
COOPER, ARTHUR LESLIE ...	17, Friar Street, Reading.
DAVIS, CHARLES EDWARD ...	Wroxton Estate Office, near Banbury, Oxon.
DREWEATT, THOMAS	Newbury, Berks.
EGGINTON, DENYS...	150, Friar Street, Reading.
EGGINTON, JOHN	150, Friar Street, Reading.
FIELD, FRANCIS HAYWARD	11, King Edward Street, Oxford.
GALE, JOSEPH JOHN	Market Place, Wallingford.
HABGOOD, HENRY CHARLES	Witney, Oxon.
HARRISON, JAMES THOMAS	Town Hall Offices, Buckingham.
HASLAM, DRYLAND	Friar Street Chambers, Reading.
HASLAM, DRYLAND, JUN. ...	Friar Street Chambers, Reading.
HOLIDAY, FREDERICK DEAN	Bicester, Oxford.
HOLIDAY, PERCY CAVE ...	Bicester, Oxford.
JONES, FRANCIS WILLIAM ...	2, Frewin Court, Corn Market Street, Oxford.
KEIRLE, ROBERT	Clarefield, Sunningdale, Ascot.
LAWRENCE, ARTHUR	Great Marlow, Bucks.
LIGHTFOOT, HENRY LE BLANC	Corpus Christi College, Oxford.
LITTLE, WILLIAM DAVIS ...	Middleton Stoney, Bicester.
MAXWELL, JOSEPH ARCHIBALD	21, Marlborough Road, Banbury, Oxon.
MILLAR, WILLIAM GALT ...	Friar Street, Reading.
NEATE, ARTHUR WEBB ...	Albion House, Newbury, and Hungerford.
NORTH, GEORGE FREDERIC	Strathfield Saye, Mortimer, Berks.
PETO, JAMES WINDER	6, Market Place, Reading.
RICH, ROBERT	Didcot, Berks.
RUTHERFORD, JAMES AUGUSTINE	Highclere Park, Newbury.

SAMUEL, WILLIAM JOHN ...	Newport Pagnell, Bucks.
SIMMONS, CHARLES	Henley-on-Thames.
SMITH, FRANK BRAYBROOKE	Arkley, Bray, near Maidenhead.
TODD, RICHARD	Englefield, near Reading.
VERNON, ARTHUR...	Borshams, High Wycombe, Bucks.
WATSON, JAMES BRUCE ...	Estate Office, Shirburn, Wallingford.
WEBBER, HENRY STANTON ...	Marlow Road, Maidenhead.
WIGLEY, GEORGE DAVYS EDWARD	Winslow, Bucks.
WIGLEY, SIDNEY PRUDDEN...	Winslow, Bucks.

Total, 42 Members.

(M) BEDFORD, ESSEX, HERTFORD, AND MIDDLESEX COMMITTEE.

Chairman.

JOHN WEALL, 38, High Street, Watford, Herts.

AUSTNI, RUSSELL GARDINER	Hertford.
BALLS, JAMES MAYHEW ...	Castle Hedingham, Essex.
BENNETT, THOMAS OATLEY...	Homersfield, St. Stephen's Gardens, Twickenham.
BROWN, ARTHUR MACDONALD	Tring, Herts.
BROWN, FRANK JOHN	Tring, Herts.
BURNETT, GEORGE JOHN MULCASTER...	Elstree Cottage, Elstree, Herts.
BURR, HARRY	Estate Office, Letchworth, near Hitchin, Herts.
CHANCELLOR, FREDERICK ...	Chelmsford.
CHILD, FRED	1, Station Road, New Barnet, Herts.
COUCHMAN, HENRY BOTELER	Moor Park Estate Office, Rickmansworth.
COVERDALE, FREDERICK JOHN	Ingatestone Hall, Essex.
CRAWTER, JOHN	Cheshunt, Herts.
CRAWTER, JOHN, JUNIOR ...	Cheshunt, Herts.
CUMBERLAND, EDWARD ANTHONY	Luton, and Leighton Buzzard.
DUVALL, JOHN WILLIAM ...	The Grange, Ware.
EVE, HERBERT TRUSTRAM ..	2, St. Paul's Square, Bedford.
FENN, JOHN	The Hall, Ardleigh, and 146, High Street, Colchester.
FENNING, HERBERT SAMUEL	Fairfield, Ashburnham Road, Bedford.
FIELDS - CLARKE, GEORGE THOMAS	Estate Office, Southill Park, Biggleswade.
FOULKES, SEPTIMUS GIFFARD	Tring, Herts.

FRANKLIN, BENJAMIN BELGROVE	21, Market Hill, Luton, Bedfordshire.
GREENWOOD, JOSEPH	Royal Engineer Office, Colchester.
HASLUCK, LANCELOT GERALD	Green Hill Park, New Barnet, Herts.
HILLIARD, GEORGE EDWARD	Chelmsford.
HOOD, THOMAS	Birdbrook, Halstead, Essex.
HUNT, THOMAS	Baldock Street, Ware, Herts.
KEMP-SMITH, JAMES FREDERICK	Orsett, Essex.
MERRICK, FREDERICK, WALTER	Stanwell Moor, Staines.
MERRY, ARTHUR WALKER	17, High Street, Leighton Buzzard.
NEWMAN, THOMAS HARRY...	Rayne, Essex.
NOCKOLDS, ALFRED GEORGE	Saffron Walden, Essex.
NOCKOLDS, MARTIN	Saffron Walden, Essex.
NORMAN, JAMES MAURICE...	Uxbridge, Middlesex.
PARKER, CHARLES ALFRED	Maldon, Essex.
RUMBALL, AUBREY	St. Alban's, Herts.
SAUNDERS, EDWARD	Leigh Grange, Teddington.
SHILCOCK, JAMES	Hitchin, Herts.
STANFORD, CHARLES MAURICE	23, High Street, Colchester.
START, JOSEPH WILLIAM ...	High Street, Colchester.
STRUTT, THE HON. EDWARD GERALD	Whitelands, Hatfield Peverel, Chelmsford, Essex.
SURRIDGE, JOSEPH SMITH ...	Coggeshall, Essex.
SWORDER, HUGH	High Street, Epping.
TALLENT, EDWIN JAMES ...	Brent Pelham, Buntingford, Herts.
TAYLOR, EDWARD FERGUSSON	New Barnet, Herts.
THURNALL, JOHN EDWARD...	Royston, Herts.
TRENT, WILLIAM EDWARD...	Homefield, Maple Road, Wallwood Park, Leytonstone.
TRETHEWY, HENRY	Silsoe, Ampthill, Beds.
TUTT, EDWIN THOMAS	Market Place, Ampthill, Beds.
VAIZEY, JOHN GEORGE ...	Bocking, Braintree, Essex.
WEALL, JOHN GRAHAM... ...	38, High Street, Watford, Herts.
WOODMAN, THOMAS FOSTER	32, St. Peter Street, St. Albans.
WOODS, THOMAS	4 & 5, Church Parade, Hounslow, Middlesex.
WYLES, JOHN WALTER ...	Shortlands, Woodford Road, South Woodford, Essex.

Total, 54 Members.

(N) DEVON AND CORNWALL COMMITTEE.

Chairman.

JOHN KITTOW, West Holm, Launceston.

BARKER, GEOFFREY LIONEL	Teigngrace House, Teigngrace, Newton Abbot.
BENSON, ROBERT ALAN ...	Duchy of Cornwall Office, Liskeard.
BODY, ARTHUR	Princess Chambers, Princess Sq., Plymouth.
BODY, JOHN BOND	Princess Chambers, Princess Sq., Plymouth.
BOURNE, ROBERT ELLIOTT ...	Elwell, Totnes.
BOWDEN, JOHN FRIENDSHIP	Bedford Chambers, Exeter.
COOPER, JOHN GROVES ...	Bideford.
CORDEROY, ATHELSTANE ...	12, George Street, Plymouth.
DREW, HENRY ALBAN	15, Queen Street, Exeter.
DREW, HENRY	15, Queen Street, Exeter.
DREW, JOHN GOULD	15, Queen Street, Exeter.
DUDLEY, EDGAR	Bedford House, 24, Bedford St., Plymouth.
DYMOND, FRANCIS WILLIAMS	21, Southernhay West, Exeter.
ELLIOTT, CHARLES	16, Ermington Terrace, Plymouth.
ELLIS, ALBERT EDWARD ...	Bedford Chambers, Exeter.
EVE, CHARLES GERALD ...	Kitley Estate Office, Yealmpton, near Plymouth.
FOX, FREDERICK RUSSELL ...	The Imperial Hotel, Barnstaple.
FROST, FREDERIC CORNISH	Teignmouth.
GALBRAITH, SAMUEL HAUGHTON	Royal Engineer Office, Devonport.
JENKIN, ARTHUR PEARSE ...	Trewirgie, Redruth.
LOCK, WILLIAM HENRY ...	Instow.
LOVEYS, ARTHUR CLAMPITT	Moretonhampstead.
LUCAS, JOHN ARCHIBALD ...	Guildhall Chambers, High Street, Exeter.
MEABY, THOMAS JAMES, JUN.	Cockington, near Torquay.
MICHELMORE, ALFRED ...	Berry Pomeroy Estate Office, Totnes.
PARSONS, HENRY JOHN DONNE	21, Southernhay West, Exeter.
PEARSE, WILLIAM	Stoliford, Modbury.
POWELL, CHARLES REGINALD EVERNDEN	Bridge Chambers, Bideford, Devon.
RENDELL, ARTHUR STEPHEN	Market Terrace, Newton Abbot.
RUNDLE, EDWARD COLLINS	Bedford Estate Office, Tavistock.
SCOTT - SMITH, ARTHUR COURTENAY.	187 and 188, High Street, Exeter
SMYTH-RICHARDS, GEORGE COBLEY	Estate Office, Castle Hill, near South Molton.
STAPLEDON, ERNEST ALLEN	Bridge Chambers, Bideford, North Devon.

STOOKE, JAMES	Courtenay Street Newton Abbot.
TAYLOR, THOMAS WILLIAM HARRIS...	Estates Office, Killerton, Exeter, Devon.
THORNE, ARNOLD	Cross Street, Barnstaple.
WARD, DANIEL	8, Courtenay Street, Plymouth.
WARD, FRANK	Burnville, Tavistock.
WARE, CHARLES EDWIN ...	Gandy Street Chambers, Exeter.
WHITAKER, ERNEST VICTOR	8, Queen Street, Exeter, Devon.
WHITTON, PERCY	24, Gandy Street, Exeter, Devon.

Total, 42 Members.

(O) SOMERSET, GLOUCESTER, AND NORTH WILTS COMMITTEE

Chairman.

EDWIN MAGGS HIPPISLEY, 4, Chamberlain Street, Wells.

ADDIE, PETER	City Valuers' Department, The Council House, Bristol.
ANDERSON, ROBERT	The Barton, Cirencester.
ANDREW, THOMAS HAWKES	Northfield, Minehead, Somerset.
BAINES, MATHEW TALBOT ...	Wootton Bassett, Wilts.
BIRCH, FRANCIS JULIAN LAURENCE	Hill Side, Yatton, Somerset.
BISHOP, CHARLES	Regent Circus, Swindon, Wilts.
BRINKWORTH, ROBERT EDWIN	16, Old Bond Street, Bath.
BRUTON, HENRY WILLIAM ...	Albion Chambers, Gloucester.
COTTERELL, ALBERT PLAYER ISAAC	Scottish Buildings, 28, Baldwin St., Bristol.
EDWARDS, ARTHUR PHIPPEN	Hutton, near Weston-super-Mare.
ELLIS, ARNOLD ROBERTSON...	College Street, Gloucester.
FARWELL, FREDERICK GEORGE	11, Laura Place, Bath.
FERRIS, GEORGE	Milton Manor, Pewsey, Wilts.
FURMEDGE, JOHN HARRIS ...	Estate Office, Lucknam, Chippenham, Wilts.
GARNER, JOHN STANLEY ..	64, High Street, Weston-super-Mare.
HARLE, JOHN JOSEPH	Tortworth Estate Office, Falfield, Gloucester.
HEARD, HERBERT	Shepton Mallet, Somerset.
HIPPISLEY, WILLIAM JOHN ...	12, Chamberlain Street, Wells.
JEANS, MARK	Marlborough, Wilts.
KNOWLES, HENRY	Linden Grove, The Spa, Gloucester.
MADGE, JOHN	Somerset House, Chard, Somerset.

MARSHALL, LIONEL HASLER	Chippenham, Wilts.
MUNDY, HERBERT...	Manvers Street, Trowbridge, Wilts.
MUNRO, PHILIP	2, St. Stephen's Chambers, New Baldwin Street, Bristol.
NAPIER, HENRY BURROUGHES	Long Ashton, Clifton, Bristol.
PARRY, RICHARD FREDERICK	Cheddar, Somerset.
PARSONS, ROBERT MAURICE PETERS...	Misterton, Crewkerne.
PEARD, JOHN GRIGG	North Curry, near Taunton.
PETTER, ALBERT EDWARD ...	City Valuers Office, Council House, Bristo
PRITCHETT, ELLIS HERBERT	Regent Circus, Swindon, Wilts.
SCAMMELL, THOMAS	1, St. Stephen Street, Bristol.
SEDGWICK, ALFRED SYDNEY EDWARD	26, Alexandra Parade, Weston-super-Mare.
SHUFFLEBOTHAM, JOHN HENRY	Staplegrove, Taunton.
SILCOCK, THOMAS BALL ...	47, Milsom Street, Bath.
SMITH, HENRY HERBERT ...	Chippenham, Wilts.
SOWELS, WILLIAM CLOWES...	Queen Camel, Bath.
SPACKMAN, CHARLES CHANTREY	6, Terrace Walk, Bath.
STURGE, ROBERT FOWLER ...	33, Corn Street, Bristol.
STURGE, WILLIAM	33, Corn Street, Bristol.
TREPPLIN, ERNEST C.	Stoke Court, Taunton.
VILLAR, JAMES	2, Essex Place, Cheltenham.
WAINWRIGHT, C. RAWLINSON	Shepton Mallet.
WATKINS, ROBERT ARUNDEL	Castle Combe, Chippenham, Wilts.
WELSH, HUGH...	Newton Park Estates, Newton St. Loe, near Bristol.
WISE, CHARLES DACRES ...	Toddington, Winchcomb, Gloucestershire.
WOOLER, WALTER HERNAMAN	Waterloo Street, Weston-super-Mare.

Total, 47 Members.

(P) HAMPSHIRE, DORSET, AND SOUTH WILTS COMMITTEE.

Chairman.
NEWELL, WILLIAM PITTS SQUAREY, Bemerton, Salisbury.

ALLEN, GEORGE	Strangways, Marnhull, Blandford, Dorset.
APPLEBY, JOHN HENRY JAMES	Fareham, Hampshire.
ARNOLD, FRANCIS	Chilland, Winchester, & Hambledon, Hants.
AUSTIN, RICHARD, JUN. ...	Bishop's Waltham, Hants.
BATH, FRED	Crown Chambers, Salisbury.
BIRD, JAMES BINFIELD... ...	West Cowes, Isle of Wight.
BLAKE, FREDERICK	46, Commercial Road, Portsmouth, Hants.
BLIZARD, JOHN HENRY ...	Lansdowne House, Castle Lane, Southampton.
BURNETT, ALFRED ANDREW	2, High Street, Southampton.
CANNING, WILLIAM BROWNE	Salisbury, Wilts.
CLIFTON, JAMES EDWARD ...	Swanage, Dorset.
COCKS, SAMUEL ROGER ...	5, St. Thomas's Street, Ryde.
COLEMAN, THOMAS EVERIT ...	Royal Engineer Office, Milldam Barracks, Portsmouth.
COMBES, CYRUS	Tisbury, Wilts.
CRICKMAY, GEORGE RACKSTROW	St. Thomas' Street, Weymouth.
CRICKMAY, JOHN EDWARD ...	St. Thomas' Street, Weymouth.
CURTIS, CHARLES EDWARD...	Woodlands, Brockenhurst, Hants.
DAY, GEORGE CARLETON ...	Estate Office, Woodbridge, Shaftesbury, Dorset.
DOWSETT, CHARLES FINCH ...	Winklebury, Basingstoke.
DUKE, EDWARD	Dorchester.
DUKE, HENRY...	Dorchester.
EAMES, EDWARD	Compton, Winchester.
EVANS-VAUGHAN, HENRY ...	Glen Dale, Surrey Road, Bournemouth.
ELFORD, JOHN	King Street, Poole.
ELLEN, FREDERICK CHARLES	Andover.
FOX, ERNEST	15, Holdenhurst Road, Bournemouth.
FOX, WILLIAM	15, Holdenhurst Road, Bournemouth.
GATER, CALEB WILLIAM ...	Salisbury.
GOLDSMITH, DOUGLAS FLEET	Lavant Street, Petersfield, Hants.
GUDGEON, GEORGE EDWARD	Estate Agency Offices, Winchester.
HALL, ERNEST	57, Commercial Road, Portsmouth, Hants.
HANKINSON, THOMAS JAMES	Richmond Chambers, Bournemouth, Hants.
HARRIS, JAMES	Winchester.
HAWKER, HARRY EDWIN ...	St. Peter's Chambers, Bournemouth.
HERBERT, ALLAN	The Market Place, Andover.
HILL, WILLIAM BURROUGH	62, Above Bar, Southampton.

ISTED, SAMUEL EVELAND ...	Royal Engineer Office, North Camp, Aldershot.
JENKINS, RICHARD JAMES ...	Town Hall, Portsmouth.
KENT, GEORGE EDWARD ...	Normanhurst, Cavendish Road, Southsea.
KING, THOMAS	Pembroke House, Portsmouth.
LANE, ERNEST LACAN. ...	81, Old Christchurch Road, Bournemouth.
LEMON, JAMES	Southampton.
LYWOOD, EDWIN	Norman Court, Clatford, Andover.
MARVIN, ALBERT EDWARD	Marl Hill, Carisbrooke.
MITCHELL, GEORGE SHARMAN	Upper Adhurst, Petersfield, Hants.
NEWTON, THOMAS EDWIN ...	Bank Chambers, Winchester.
OAKLEY, EDWARD BENJAMIN	Westville, Parkstone, Dorset.
OLIPHANT, GEORGE A. J. ...	The Grange, Shrewton, Wiltshire.
PAIN, GEORGE LLOYD	Keysworth Farm, Wareham.
PAIN, JAMES...	48, West Street, Fareham, Hants.
PARSONS, FRANK DONISTHORPE	The Mill, Milton, Melplash, R.S.O., Dorset.
PATERSON, CHARLES	Canford Estate Office, Wimborne, Dorset.
PERKINS, WALTER FRANK ...	The Auction Mart, Southampton.
RAWLENCE, ERNEST ALFRED	Newlands, Salisbury.
RAWLENCE, JAMES EDWARD	The Canal, Salisbury.
RAYNBIRD, HUGH EDWARD	Basingstoke, Hants.
REBBECK, EDWARD WISE ...	Stafford Lodge, Bournemouth.
REBBECK, THOMAS WARREN	Gervis Place, Bournemouth.
RICHARDS, GEORGE EDWARD	Stour Lodge, Wimborne.
RIDDETT, WILLIAM HAMMOND	Townhall Chambers, Ryde.
RIGDEN, FRANCIS	Salisbury.
ROBEY, ROBERT	Oaklands, East Tytherley, near Romsey.
ROBINSON, EDMUND ARTHUR	Lee-on-the-Solent, Gosport, Hants.
ROKER, MITCHEL JOHN ...	Snowdenham, West Cliff Road, Bournemouth.
SANCTUARY, CAMPBELL FORTESCUE STAPLETON	Mangerton, Melplash, Dorset.
SANDERS, INGALTON	23, Portland Street, Southampton.
SAUNDERS, THEODORE RIDLEY	Belgrave Chambers, Ventnor.
SAWYER, JOHN ASHTON ...	62, High Street, Winchester.
SENIOR, HARRY SAMUEL ...	Sturminster Newton, Dorset.
SIMMONS, CHARLES FRANKLIN	Basingstoke, Hants.
SMITH, FREDERICK JOHN ...	21, Portland Street, Southampton.
SMITH, GEORGE ALFRED ...	78, Parchment Street, Winchester.
SQUAREY, ELIAS PITTS ...	The Moot, Downton, Salisbury.
STALLARD, ALFRED EDWIN...	West Street, Havant.
STIRTON, THOMAS...	Ablington House, Figheldean, Salisbury.
STOPHER, THOMAS	Winchester.

STUDDY, THOMAS EDWARD	Estate Office, Basing Park, Alton.
TORY, JOHN EDWARD	Dorchester, Dorset.
VERNON - INKPEN, GEORGE CHARLES	75, King's Road, Southsea.
WALMISLEY, JOSEPH WILLIAM	7, King's Terrace, Southsea.
WALTER, THOMAS JAMES ...	Gervis Place, Bournemouth.
WARNER, HENRY	Faringdon, Alton, Hants.
WATERS, EDWARD	The Canal, Salisbury.
WAY, HENRY JAMES	109, Lower St. James's Street. Newport, Isle of Wight.
WELLS, WILLIAM HOWLEY ...	Estate Office, Evershot.
WESTBURY, GEORGE HENRY	The Knoll, Andover.
WETHERALL, HARRY LANCASTER	Brachlyn, Winchfield.
WILBRAHAM, EDWARD SIDNEY	Estate Office, St. Giles, Salisbury.
WOOLLEY, JOHN TURTON ...	Salisbury.
WYATT, ARCHIBALD	The Jungle, Portchester.
YOUNG, CHARLES	Alton, Hants.
YOUNG, HARRY AUSTIN LINDSEY	The Johnstone Estate Office, Weymouth.

Total, 93 Members.

(Q) KENT COMMITTEE.

Chairman.

GEORGE LANGRIDGE, The Broadway, Tunbridge Wells.

AMOS, FRANK	3, The Parade, Canterbury.
ASHENDEN, LEONARD THOMAS	The Kent Fire Office, 29, Westgate, Canterbury.
BARKER, CHARLES	83, Mason's Hill, Bromley.
BARKSHIRE, CHARLES ROBERT	Royal Engineer Offices, Inner Lines, Chatham.
BARTON, HARRY HOWELL ...	17, Guildhall Street, Folkestone.
BRACKETT, ARTHUR WILLIAM	27, High Street, Tunbridge Wells.
BRACKETT, FREDERICK HENRY	27, High Street, Tunbridge Wells.
BRACKETT, WILLIAM	27, High Street, Tunbridge Wells.
BURNS, GAVIN JAMES	Building Works Department, Royal Arsenal, Woolwich.
BURROWS, ALFRED JOHN ...	41, Bank Street, Ashford.
CHATTELL, FRANCIS LORIOT	Lower Camden, Chislehurst.
COBB, HERBERT MANSFIELD	Higham.
COBHAM, GEORGE WILLIAM	1 and 3, Edwin Street, Gravesend.
COOKE, HENRY	Watts Avenue, Rochester.
COWPER, WILLIAM SHAPLAND	81, High Street, Sittingbourne.
COX, WALTER THEODORE ...	Grasmere, Tovil, Maidstone.
CRONK, CHARLES TYLEE ...	Sevenoaks.
CRONK, EDWYN EVANS ...	Sevenoaks.
CRONK, FRANK	Sevenoaks.
CRONK, WILLIAM HENRY ...	Sevenoaks.
DANN, HENRY	Dartford.
DANN, HENRY, JUN.	Shears Green, near Gravesend.
DAY, WILLIAM, JUN.	23, High Street, Maidstone.
DUNSTALL, HERBERT HENRY	Bank Chambers, Railway Street, Chatham.
ELGAR, J. EDWARD	Crockshard, Wingham.
ELTON, HERBERT AVERILL ...	Building Works Department, Royal Arsenal, Woolwich.
EWING, GUY BEAUMONT ...	Cole Allen, Edenbridge.
FINN, ADOLPHUS	High Street, Lydd, and Rye.
FINN, FRED. JUN....	Queen Street, Deal.
FREEMAN, SYDNEY	The Broadway, Tunbridge Wells.
FRY, GEORGE FREDERICK ...	46, London Road, Dover.
GRIPPER, JOSEPH EDWARD ...	Pier Hotel Chambers, Herne Bay.
GROVER, PHILIP GORDON ...	Shepherdshill, Selling, Faversham.
HADDOCK, ROLAND	44, Stephens Road, Tunbridge Wells.

HARVEY, JOHN JAMES SAYER	80, Castle Street, Canterbury.
HAYWARD, FREDERICK GEORGE	Dover.
HAYWARD, HENRY	Dover.
HINDS, HENRY	57, Queen Street, Ramsgate.
HOBBS, JOHN	Estate Office, Ashford.
HOMAN, FRANKLIN GEORGE...	184, Eastgate, Rochester.
HOMAN, HUBERT FRANKLIN...	184, Eastgate, Rochester.
HONEYBALL, FRED. THOMAS	Deal.
HOOPER, CECIL HENRY... ...	Church House, Shoreham.
JACKSON, WILLIAM TRESS ...	117, High Street, Sittingbourne.
JENNINGS, WILLIAM JOSEPH...	4, St. Margaret's Street, Canterbury.
KIDWELL, JOHN	St. Margaret's Bank, Rochester.
KINGSFORD, PERCY HAMILTON	24, High Street, Canterbury.
LATTER, HUGH ROBINSON ...	The Town Hall, Bromley.
LEPPER, JOHN HARRAGE ...	10, Market Square, Bromley.
LOVEGROVE, HENRY	18, Foxgrove Road, Beckenham.
LUCAS, WILLIAM EDWARD ...	Bexley.
MANN, JABEZ	Sevenoaks.
NEAME, FREDERICK, JUN. ...	Macknade, Faversham.
OSENTON, GEORGE...	Stone Corner Farm, near Tenterden.
PAGE, STANLEY HATCH... ...	6, Queen Street, Ramsgate.
PAYNE, FREDERICK	10, Market Square, Bromley.
PHILLIPS, FREDERICK HAMILTON	Beechcroft, Temple Ewell, near Dover.
PRALL, HERBERT ALEXANDER	Martin's Bank Chambers, Dartford.
ROPER, WILLIAM	Kentish Buildings, Tunbridge Wells.
RUDKIN, ARTHUR JOHN ...	Maranatha, Tatsfield, Westerham.
SCRIVEN, CHARLES HERBERT	Agency Office, Thong, Gravesend.
SEYMOUR, RICHARD ARTHUR HAMILTON	46, Earl Street, Maidstone.
SMITH, GEORGE	Boughton Monchelsea.
TAYLOR, EDGAR CHARLES ...	Reconstruction Office, R.E. Lines, Shorncliffe Camp.
TEMPLE, FREDERICK WILSON	48, Sandgate Road, Folkestone.
TEWSON, EDWARD ARTHUR	14, Molyneux Park, Tunbridge Wells.
TOMPSETT, WILLIAM ROBERT	Meadhurst, Tonbridge, and Stone Castle Farm, Paddock Wood.
TOOTELL, JOSEPH	13, King Street, Maidstone.
VINTEN, HAROLD BERTRAM...	72, High Street, Ramsgate.
WACHER, THOMAS...	Upper Bridge Street, Canterbury.
WARING, HERBERT FULLER...	46, Earl Street, Maidstone.
WATERMAN, ALFRED JAMES...	20, Week Street, Maidstone.
WATERMAN, JAMES	Tenterden.
WOOD, WILLIAM	Ivymeath, Snodland, Rochester.

Total, 73 Members.

(R) SUSSEX COMMITTEE.

Chairman.

WALTER FIELDE INGRAM, 2, St. Andrew's Place, Lewes, & 17, Preston Street, Brighton.

AUSTEN, FRANK	Marling Place, Wadhurst.
BANNISTER, THOMAS	Limehurst, Hayward's Heath.
BASLEY, HAROLD PULHAM ...	75, Addison Road, Hove.
BOWLEY, JOHN CROSS	Norman Terrace, Hastings.
BURTENSHAW, ALBERT... ...	Hailsham.
BURTENSHAW, ALBERT KING	Hailsham.
BUZZARD, ALFRED LINDSEY	Avondale, Chesterfield Road, Eastbourne.
CARD, HENRY CURTIS	North Street, Lewes.
CHASEMORE, PHILIP	Ashleigh, Horsham.
COLGATE, THOMAS...	Sheffield Park, Uckfield.
CORY, EDWARD JOHN, CAPTAIN	High Street, Rye.
DAVEY, HENRY THOMAS ...	Cumberland Villa, St. Anne's, Lewes.
DENNISON, JOHN W.	28, Upperton Gardens, Eastbourne.
DRAY, ALFRED	Town Hall Chambers, Hastings.
DYER, FREDERICK BURFIELD	2, St. Andrew's Place, Lewes.
GARDNER, GILBERT	Crawley.
HOBGEN, FRANCIS NEALE ...	East Street, Chichester.
HOBGEN, THOMAS CECIL ...	Highleigh, Sidlesham, near Chichester.
HOOPER, EDGAR WILFRED ...	15, High Street, East Grinstead, Sussex.
HOWARD, HARRY	Town Offices, Littlehampton.
HUDSON, EDWARD WILLIAM	Hove.
JENNER, WILLIAM	1, Western Road, Hove, Brighton.
KILLICK, ANTHONY EDWARD	29, Terminus Road, Eastbourne.
KING, FRANK HULME	Horsham.
MARTIN, THOMAS	"Senlac," Baldslow Road, Hastings.
MAY, FRANCIS JOHN CHARLES	Town Hall, Brighton.
MORRIS, HERBERT	Lewes.
OGILVIE, ROBERT MATHEWSON	Hayward's Heath.
PARRIS, CHARLES JOHN ...	Beechwood, Crowborough.
PARSONS, FREDERICK CECIL	163, North Street, Brighton.
PEARSON, T. HOWARD	52, Ventnor Villas, Hove.
POWELL, HUBERT JOHN ...	Hill Lodge, Lewes.
POWELL, REGINALD HENRY...	St. Swithun's Lane, Lewes.
REEVE, KINGSNORTH	High Street, Rye.
SMITH, SIDNEY	Southwater, Horsham.
TAYLOR, MATTHEW	Northchapel, Petworth.
TURNER, CHARLES...	Oakhurst, East Grinstead.

WATERS, WILLIAM RICHARD	123, King's Road, Brighton.
WATSON, HERBERT EDWARD	New Grove, Petworth.
WELCH, FREDERICK WILLIAM	168, North Street, Brighton, and Hove.
WILKINSON, THOMAS	168, North Street, Brighton, and Hove.
WOOD, LESLIE STUART	College View, East Grinstead.
WYATT, HERBERT GUY BUCKELL	10, West Pallant, Chichester.
WYATT, OLIVER NEWMAN ...	East Street, Chichester.

Total, 45 Members.

(S) NORTH WALES AND RADNOR COMMITTEE.

Chairman.

JOHN EDWARD POUNDLEY, Kerry, Newtown, Montgomeryshire.

ADDIE, WILLIAM FORRESTER	Powis Castle Estate Office, Welchpool, Montgomeryshire.
BIRCH, RICHARD ELWYN ...	Bryncelyn, St. Asaph, N. Wales.
DEW, WILLIAM ARTHUR ...	Wellfield House, Bangor.
GILLART, DAVID	Towyn, Merionethshire.
GRANT, JAMES	Glandwr, Llanidloes, Montgomeryshire.
GUNTER, JAMES	Estate Office, Glasbury, Radnorshire.
JONES, WALTER BUTLER CLOUGH	Mynydd, Ednyfed, Criccieth, Carnarvonshire.
JONES, WILLIAM EDWARD ...	Anglesey Estate Office, Craig, Llanfair P.G., Anglesey.
LYNES, HUMPHREY DOD ...	The Halkyn Estate Office, Holywell, Flintshire.
MCINTYRE, PETER	Gwydyr Ucha, Llanrwst, N. Wales.
MACNICOLL, DOUGLAS HENRY	Derwas, Abergele, Denbighshire.
OWEN, WILLIAM SCOTT ...	Cefngwifed, near Newtown, Montgomeryshire.
PICKERING, WILLIAM CLOVES	Rhewl House, Mostyn, Flintshire.
PORTER, JOHN MERRY... ...	Estate Office, Colwyn Bay, N. Wales.
SWETENHAM, HENRY	Estate Office, Hawarden, Flintshire.
WILLIAMS, JOHN	Gwernhefin, Bala, Merionethshire.

Total, 17 Members.

(T) IRISH BRANCH COMMITTEE.

Chairman.

WILLIAM ROCHFORT, Cahir Abbey, Cahir, Co. Tipperary.

ABBOTT, JOSEPH	33, Dawson Street, Dublin.
ADAIR, JOHN OLPHERT ...	Ballynoe, Tullow, Co. Clare.
ALEXANDER, HENRY G. S. COLONEL	Derrygally, Moy, Co. Tyrone.
ANDERSON, ALEX. CAREW ...	Ballymountain, Waterford.

ARMSTRONG, ALEXANDER MOORE, CAPT.	Culmore House, Kilrea, Co. Londonderry.
ARMSTRONG, ELLIOTT GRAHAM	Rent Office, Ahascragh, Ballinasloe, Co. Galway.
BAILLIE, JOHN ROBERT, LIEUT.-COLONEL	Abercorn Estate Office, Strabane, Co. Tyrone.
BALDWIN, CHAMBRÉ CORCOR THOMAS	7, Leinster Street, Dublin.
BARNES, WILLIAM ARTHUR...	Westland, Kells, Co. Meath.
BARRINGTON, JOHN BEATTY	Barrington Street, Limerick.
BARTON, HENRY DUPRÉ MALKIN	The Bush, Antrim.
BARTON, ROBERT CULLEY ...	Mosstown, Streamstown, Co. Westmeath.
BEAMISH, WILLIAM HENRY...	2, South Mall, Cork.
BIGGER, JOHN JAMES EASTWOOD	Fairymount, Dundalk.
BLACKLEY, TRAVERS ROBERT	Drumbar, Cavan.
BOWEN, EDWARD FERGUSON	Mantua House, Castlerea, Roscommon.
BRADSHAW, ROBERT MACNEVIN	26, South Frederick Street, Dublin.
BRIDGE, HENRY POWELL ...	Racket Hall, Roscrea, Tipperary.
BROADLEY, EDWARD BARRY, MAJOR...	73, South Mall, Cork.
BROWNE, ERNEST H.	Brookfield, Tullamore.
BROWNLOW, CHARLES	Estate Office, Portaferry, Co. Down.
BROWNLOW, CLAUDE	Estate Office, Coolderry, Carrickmacross, Co. Monaghan.
BURKE, HENRY ANTHONY ...	Drumkeen, Ballinamallard, Co. Fermanagh.
BURKE, WILLIAM CREAGHE...	Clonne, Ballinrobe, Co. Mayo.
BUTLER, WALTER SELBY ...	Green Mount, Castle Bellingham, Co. Louth.
CARROLL, THEODORE FREDERICK...	80, South Mall, Cork.
CARSON, WILLIAM B.	11, Leinster Street, Dublin.
CHAMBRÉ, C. B. M.	Estate Office, Dungannon, Co. Tyrone.
CHATTERTON, ROBT. SMITH	Belmount, Raheney, Co. Dublin.
COOTE, ORLANDO ROBERT ...	Auburn, Athlone.
COOTE, STANLEY VICTOR ...	Carrowroe Park, Roscommon, and The Orchard House, Wargrave, Berks.
CORDNER, CLEMENT KENNEDY	Estate Office, Antrim.
CREAGH, ARTHUR GETHIN ...	Mallow, Co. Cork.
CROSBIE, JAMES DAYROLLES	Gurtenard, Listowel, Co. Kerry.
DARLEY, EDMUND SANDERS	5, College Green, Dublin.
DARLEY, HENRY PONSONBY SHAW	Estate Office, Carrick-on-Shannon, Co. Leitrim.
DEANE, GEORGE B.	Liskilleen, Ballinrobe, Co. Mayo.
DENNY, FRANCIS MCGILLYCUDDY	17, Denny Street, Tralee.

DICKINSON, CHARLES	36, South Frederick Street, Dublin.
EDGEWORTH, THOMAS NEWCOMEN	Kilshrewly, Edgeworthstown.
ELLIS, ERNEST FRANCIS LESLIE	Estate Office, Bantry, Co. Cork.
EVANS, WILLIAM	Gillardstown House, Killucan.
FARRELL, EDWARD FRANCIS	Moynalty, Kells, Co. Meath.
FETHERSTONHAUGH, THEODORE	Grouse Lodge, Moate, Co. Westmeath.
FITZGERALD, JAMES H. B. PENROSE	The Estate Office, Middleton, Co. Cork.
FITZGERALD, PETER DAVID...	Estate Office, Adare, Co. Limerick.
FITZGERALD, ROBERT JOHN	Ballyard House, Tralee.
FORBES, ARTHUR	Earls Vale, Cavan.
FRANKS, MATTHEW HENRY	Woodbrook, Mountrath, Queen's County.
FRANKS, MATTHEW HENRY JUN.	Westfield, Mountrath, Queen's County.
FRENCH, SAVAGE	2, South Mall, Cork.
FREND, HENRY	Townsend Street, Birr, King's County.
GALBRAITH, HUGH	21, Westland Row, Dublin.
GARRETT, JAMES HUGH MOORE...	Corriewood, Castlewellan, Co. Down.
GARVEY, TOLER ROBERT ...	Thornvale, Moneygall, King's County.
GARVEY, TOLER ROBERT, JUN.	Estates Office, Parsonstown.
GIBBON, EDWARD ACTON ...	Seaville, Tramore, Co. Waterford.
GLOSTER, THOMAS EDWARD	Collon, Co. Louth.
GODLEY, ARCHIBALD	Killygar, Killeshandra.
HAMILTON, ARTHUR	40, Lower Diminick Street, Dublin.
HAMILTON, EDWARD CHETWOOD, MAJOR	Woodstock Estate Offices, Inistioge.
HARDMAN, EDWARD CHAMBRÉ	14, Molesworth Street, Dublin.
HARVEY, JAS. G. MOREWOOD	Northern Bank Buildings, Londonderry.
HEARN, CHARLES RICHARD...	Annaghroe House, Caledon, Co. Tyrone.
HEMPHILL, CHARLES GEORGE CATHCART	11, Ely Place, Dublin.
HEWSON, GEORGE RAWDON MAURICE	Dromahair, Co. Leitrim.
HODSON, GILBERT NEVILLE...	Ardbrae, Bray, Co. Wicklow.
HODSON, RICHARD EDMOND	Coolfadda House, Bandon, Co. Cork.
HOLMES, WILLIAM EDEN ...	69, Dann Street, Dublin.
HOSFORD, EDWARD HENRY POE	76, George Street, Limerick.
HUMPHREYS, DANIEL PEARD	80, South Mall, Cork.
HUNT, WILLIAM LEWIS ...	83, George Street, Limerick.
HUNT, WILLIAM POWER ...	5, Glentworth Street, Limerick.
HUSSEY, SAMUEL MURRAY...	18, Elvaston Place, S.W., and Edenburn, Gortalea, Co. Kerry.

HUTCHINGS, SAMUEL NEWBURGH	Ardnagashel, Bantry, Co. Cork.
IRVINE, HY., LIEUT.-COL. ...	Omagh, Co. Tyrone.
JAMESON, ROBT. WILLIAM ...	Estate Office, Foynes, Co. Limerick.
JOHNSON, JOCELYN OTWAY...	Kilganon, Enniskerry.
JOHNSTONE, AUGUSTUS FREDERIC	Whitchester, Arundel Road, Eastbourne, Sussex.
JOHNSTONE, JOHN BRETT ...	Ballycastle, Co. Antrim.
KRANE, MARCUS	Beech Park, Ennis, Co. Clare.
KELLY, RICHARD HENRY ...	21, The Mall, Waterford.
KINCAID, JAMES STEWART ...	7, Leinster Street, Dublin.
KINCAID, JOSEPH WESTBY ...	7, Leinster Street, Dublin.
KNIGHT, MAURICE CHARLES	The Grange, Ballymena, Co. Antrim.
KNOX, ALBERT FREDERIC ...	Estate Office, Ballina, Co. Mayo.
KNOX, ALBERT HENRY ...	Ballina, Co. Mayo.
KNOX, EDWARD ERNEST ...	8, Milward Terrace, Bray.
KNOX, ERNEST HENRY ...	Greenwood Park, Crossmolina, R.S.O., Co. Mayo.
LEE-NORMAN, ALEXANDER HENRY...	Corbollis, Ardee, Co. Louth.
LLOYD, AVERELL	Benburd, Moy, Co. Tyrone.
M'CLINTOCK, ARTHUR... ...	Rathoinden, Leighlinbridge, Co. Carlow.
MCCLINTOCK, CHARLES EDWARD, LIEUT.-COL.	Glendaragh, Crumlin, Co. Antrim.
MCCULLAGH, JAMES W. ...	Glasslough, Co. Monaghan
MCDONALD, ALLAN	Glenarm, Co. Antrim.
MAHON, GEORGE GILBERT...	The Rent Office, Ahascragh, Co. Galway.
MARMION, THOMAS HENRY	Estates Office, Cappoquin.
MAUDE, ANTHONY FRITZ ...	Hillsborough, Co. Down.
MAUDE, CHRISTOPHER HUGH	Lenaghan, Enniskillen, Co. Fermanagh.
MAUDE, MAURICE	Lenaghan, Enniskillen, Co. Fermanagh.
MAUNSELL, RICHARD EDWARD	9, Ely Place, Dublin.
MAXWELL, HENRY PERCEVAL	Lansdowne Lodge, Kenmare, Co. Kerry.
MURPHY, JAMES FRASER, MAJOR...	Estate Office, Boyle, Co. Roscommon.
NEWPORT, GEORGE BELLINGHAM	Rockview, Inistioge, Co. Kilkenny.
NUNN, WILLIAM BOLTON ...	George Street, Wexford, and Castlebridge.
O'BRIEN, DONOUGH RICHARD	16, Upper Mallow Street, Limerick.
OWEN, ARTHUR JOHN... ...	Shanvaghey, Ballacolla, Queen's County.
PENROSE, JAMES EDWARD...	Estate Office, Lismore Castle, Lismore.
PENROSE, WILLIAM ROBERT	Bessborough Estate Office, Piltown, Co. Kilkenny.
POWELL, ROBERT	Estate Office, Westport, Co. Mayo.
PURCELL, WILLS W.	Clydaville, Mallow.
QUIN, RICHARD	9, Crosthwaite Park West, Kingstown.

QUIN, WILLIAM THOMAS CUFFE	Kilbeggan, Co. Westmeath.
ROBERTS, EDWARD USSHER	The Rent Office, Longford.
ROBINSON, HENRY ARTHUR	Roundstone, Galway.
ROBINSON, JAMES DODWELL, MAJOR	Seamount, Sligo.
ROBINSON, RICHD. ST.GEORGE	Seamount, Sligo.
ROBINSON, WILLIAM GODFREY	Roughan Park, Dungannon, Co. Tyrone.
ROE, WILLIAM JAMES	11, Westland Row, Dublin.
ROGERS, HARRY	The Hill, Monaghan.
RUTTLEDGE, FRANCIS	Coolbawn, Enniscorthy.
RUTTLEDGE, THOMAS HENRY BRUEN	42, North Great George Street, Dublin.
SANDERS, CHARLES STEWART	Sanders Park, Charleville.
SANDERS, ROBERT MASSY DAWSON	Sanders Park, Charleville, Co. Cork.
SCOTT, JOHN RUSSELL	60, Mountjoy Square, Dublin.
SCOTT, JOHN WILLIAM... ...	Roslevan, Ennis, Co. Clare.
SMITH, GEORGE YOUNG ...	Stradowan, Omagh, Co. Tyrone.
STEWART, EDWD. P., CAPT.	21, Westland Row, Dublin.
STEWART, GEORGE FRANCIS	Summerhill, Killiney, Co. Dublin.
STEWART. GEORGE PAKENHAM	21, Westland Row, Dublin.
STEWART, HENRY PAKENHAM	6, Leinster Street, Dublin.
STEWART, WILLIAM THOMAS	6, Leinster Street, Dublin.
STOKES, RICHARD	60, Dawson Street, Dublin.
STOPFORD, THE HON. GEORGE FREDERICK WILLIAM ...	The Estate Office, Gorey, Co. Wexford.
STUDDERT, R. R.	Hazlewood, Quin, Co. Clare.
SWINEY, WILLIAM D.	Moyagh, Ramelton, Co. Donegal.
SYNGE, EDWARD	Rathe, Kingscourt, Co. Cavan.
TAILYOUR, ALEXANDER ...	Estate Office, Arklow, Co. Wicklow.
TALBOT-CROSBIE, WM. DAVID	Cloonea, Mount Talbot, Roscommon.
TATLOW, JOHN GARNETT ...	14, South Frederick Street, Dublin.
TATLOW, TISSINGTON WILLIAM GARNETT	14, South Frederick Street, Dublin.
TAYLOR, J. GODFREY L. ...	Grangeville, Fethard, Co. Waterford.
TENER, EDWARD SHAW ...	The Square, Loughrea, Co. Galway.
TISDALL, HY. CHICHESTER...	21, Lincoln Place, Dublin.
TOWNSEND, ROBERT UNIACKE FITZGERALD...	18, South Mall, Cork.
TOWNSHEND, CHARLES LOFTUS	15, Molesworth Street, Dublin.
TOWNSHEND, JAMES RICHARD CLARKE	23, South Frederick Street, Dublin.
TOWNSHEND, THOMAS COURTNEY	23, South Frederick Street, Dublin.
TOWNSHEND, THOMAS LOFTUS	15, Molesworth Street, Dublin.

TRENCH, ARTHUR	Dromkeen, Cavan.
TRENCH, GEO. FREDERIC ...	Estate Office, Ardfert, Co. Kerry.
TRENCH, JAMES CURRIE ...	Coolgraney, Dundrum, Co. Dublin.
TRENCH, PHILIP FRANCIS CHENEVIX	30, Kildare Street, Dublin.
TURNER, FREDERICK ADOLPHUS BRABAZON ...	The Estate Office, Gorey.
TYNDALL, ALBERT HENRY ...	Ballyanne House, New Ross, Co. Wexford.
TYRRELL, GARRETT CHARLES	Ballinderry, Carbery, Co. Kildare.
VANDELEUR, CECIL ERNEST...	Estate Office, Mallow, Co. Cork.
VEREKER, HENRY ROBERT...	Summerville, Westport, Co. Mayo.
VERNON, ARTHUR POMEROY	1, Wilton Place, Dublin.
VERNON, FANE	Pembroke Estate Office, Wilton Place, Dublin.
VERSCHOYLE, WILLIAM HENRY FOSTER	Woodley, Dundrum.
WARD, SOMERSET, THE HON.	Isle o' Valla House, Downpatrick.
WARNOCK, THOMAS ARCHIBALD	Portaferry, Co. Down.
WATSON, ARTHUR B.	11, Montpelier Parade, Monkstown, Co. Dublin.
WATSON, WILLIAM JAMES ...	Benvenue, Rostrevor, Co. Down.
WEBB, CHARLES	Corrigard, Boyle.
WELPLY, JAMES	65, George Street, Limerick.
WHITE, ARTHUR	99, George Street, Limerick.
WHITE, RICHARD...	Estate Office, Gowran, Co. Kilkenny.
WILLIS, GILBERT DE LAVAL	4, Kildare Street, Dublin.
WILLIS, HENRY DE LAVAL...	Ennis, Co. Clare.
WILSON, ARTHUR JN DE COURCY	Garvagh, Edgeworthstown.
WOOD-MARTIN, HENRY ROGER BROMHEAD	Cleveragh, Sligo.
WYNNE, ALFRED HENRY ...	Collon, Drogheda, Co. Louth.
YOUNG, GEORGE LAWRENCE	Randalstown, Co. Antrim.

Total, 176 Members.

(U) SCOTTISH COMMITTEE.

Chairman.

THOMAS BINNIE, 207, Hope Street, Glasgow.

ADAM, THOMAS	27, Union Street, Glasgow.
ANDERSON, ROBERT	95, Bath Street, Glasgow.
AITKEN, JOHN MALCOLM ...	Castlemilk Estates Office, Norwood, Lockerbie, Dumfriesshire.
BARR, JAMES...	221, West George Street, Glasgow.
BATHGATE, CHARLES S. ...	26, Bellgrove Street, Glasgow.
BEATTIE, WILLIAM HALDEN...	11, Glencairn Crescent, Edinburgh.
BELL, ANDREW WALKER ...	Corporation Buildings, Dunfermline.
BINNIE, THOMAS, JUN. ...	207, Hope Street, Glasgow.
BLAIR, ALEXANDER	198, West George Street, Glasgow.
BROWN, CHARLES...	Kerse Estate Office, Falkirk, Stirlingshire.
BROWN, WILLIAM	138, West Regent Street, Glasgow.
BRYANT, GEORGE HERBERT	Royal Engineer Office, Castle Terrace, Edinburgh.
BRYDEN, ROBERT A.	Richmond Chambers, 147, Bath Street, Glasgow.
BURNET, FRANK	180, Hope Street, Glasgow.
CONNOR, GEORGE HARRY ADAMS...	Estates Office, Longniddry, Haddingtonshire.
COPLAND, WILLIAM ROBERTSON	146, West Regent Street, Glasgow.
CULLEN, ALEXANDER	Brandon Chambers, Hamilton, Lanarkshire.
CUNNINGHAM, ROBERT... ...	Branxholme, Hawick, Roxburghshire.
DANSKEN, ALEXANDER BROWN...	109, St. Vincent Street, Glasgow.
DANSKEN, JOHN	241, West George Street, Glasgow.
DAVIDSON, CHARLES	Terrace Buildings, Paisley, Renfrewshire.
DAVIDSON, JAMES INGLIS ...	Sangton Mains, Edinburgh, and 175, West George Street, Glasgow.
DUKE, FREKE GUY RASHLEIGH	Braehead, Kilmarnock.
FRASER, THOMAS SMELLIE	209, St. Vincent Street, Glasgow.
FRASER, WILLIAM...	209, St. Vincent Street, Glasgow.
FYFE, JOHN WILLIAM	221, West George Street, Glasgow.
GILCHRIST, JOHN	70, Wellington Street, Glasgow.

GILLESPIE, JOHN	Blackhall, Paisley, Renfrewshire.
HAMILTON, ROBERT	Lands Valuation Office, Greenock.
HART, JOHN	Cowie Mains, Stonehaven, Kincardineshire.
HART, PATRICK CAMPBELL, A.M.I.C.E.	134, St. Vincent Street, Glasgow.
HENRY, JAMES	Lands Valuation Office, City Chambers, Glasgow.
HILL, THOMAS NELSON... ...	180, Hope Street, Glasgow.
HOWATT, WILLIAM	146, Buchanan Street, Glasgow.
JOHNSTONE, JAMES	Alloway Cottage, Ayr, Ayrshire.
KIRKWOOD, CHARLES	67, West Regent Street, Glasgow.
KNOX, ALEXANDER	53, Bothwell Street, Glasgow.
LAING, DAVID TAYLOR ...	20, Bridge Street, Glasgow.
LAMMIE, GEORGE...	138, Hope Street, Glasgow.
LOCKHART, PETER...	Estates Office, Corby Castle, Carlisle, and Blackwood House, Ecclefechan, Dumfriesshire.
LOGAN, JAMES	Coltness, Wishaw, Lanarkshire.
MACCALLUM, ALEXANDER DUNCAN	12, St. Vincent Street, Glasgow.
MCCALLUM, JAMES	Town Hall, Motherwell, Lanarkshire.
MACDONALD, RANALD RODERICK	16, Union Terrace, Aberdeen.
MACDOUGALL, ROBERT ...	138, West Regent Street, Glasgow.
MACKENZIE, DONALD FALCONER	Estate Office, Morton Hall, Liberton, Midlothian.
MCLEAN, DONALD	Dunrobin Estate Office, Golspie, Sutherlandshire.
MACLENNAN, WILLIAM ...	Grainbank, Kirkwall, Orkney Islands.
MACPHERSON, WILLIAM ...	Montrose Estate Office, Catter House, Drymen, Stirlingshire.
MAKINS, WILLIAM ALEXANDER...	79, West Regent Street, Glasgow.
MARWICK, THOMAS PURVES	43, York Place, Edinburgh.
MATHER, JAMES	Strabane, Brodick, N.B.
MUNRO, DANIEL	39, Hope Street, Glasgow.
MURDOCK, ROBERT	91, Maxwell Road, Glasgow.
MURRAY, JOHN CAMPBELL...	Pollock Estate Office, 53, Bothwell Street, Glasgow.
MURRAY, JOSEPH	Camperdown Estates Office, Dryburgh, Lochee, Forfarshire.
MURRAY, WILLIAM WATSON	Catter House, Drymen, Stirlingshire.
OLDRIEVE, WILLIAM THOMAS	H.M. Office of Works, Edinburgh.
PURDIE, ANTHONY...	241, West George Street, Glasgow.
ROBERTSON, WALTER WOOD	3, Parliament Square, Edinburgh.
ROBB, WILLIAM JOHNSTON...	53, Bothwell Street, Glasgow.

SANDFORD-THOMPSON, WILLIAM JAMES...	Balmanno, Marykirk, Kincardineshire.
SCOTT, ROBERT	115, Wellington Street, Glasgow.
SHARP, JOHN GRANT	74, Buchanan Street, Glasgow.
SMELLIE, GEORGE	167, St. Vincent Street, Glasgow.
STEVENSON, ALLAN	14, Cathcart Street, Ayr.
TANNAHILL, ROBERT DUNLOP	Lands Valuation Office, Kilmarnock.
TURNER, JOSEPH HARLING...	Portland Estate Offices, Kilmarnock.
WALKER, GEORGE JAMES ...	3, Golden Square, Aberdeen.
WALKER, JOHN	74, Bath Street, Glasgow.
WALLACE, THOMAS DOUGLAS	Callendar Park, Falkirk, Stirlingshire.
WALLACE, WILLIAM SYDNEY SMITH	Wallace Hall, Dunscore, Dumfriesshire.
WHYTE, JOHN...	Hollybank, St. Ninians, by Stirling.
WILSON, JAMES	135, Wellington Street, Glasgow.
WINNING, DOUGLAS CAMPBELL WILLS	Municipal Buildings, Broughty Ferry, Forfarshire.
YUILLE, ROBERT	70, South Portland Street, Glasgow.

Total, 77 Members.

Local Distribution of Members.

JULY 1ST, 1904.

BEDFORDSHIRE.

AMPTHILL.

Fellow:—
Tutt: Edwin Thomas.

ASPLEY GUISE.

Professional Associate:—
Druce: Elric.

BEDFORD.

Fellows:—
Eve: Herbert Trustram.
Fenning: Herbert Samuel.

Professional Associates:—
Bradshaw: Arthur Stanley.
Fenning: John Henry.
Lawley: George Frank.
Lees: Frank Arthur.
Perks: Hugh Earl.
Weston: Joseph Aurelius.

BIGGLESWADE.

Fellow:—
Fields-Clarke: George Thomas.

LEIGHTON BUZZARD.

Fellow:—
Merry: Arthur Walker.

LUTON.

Fellows:—
Cumberland: Edward Anthony.
Franklin: Benjamin Belgrove.

SILSOE.

Fellow:—
Trethewy: Henry.

WOBURN.

Professional Associates:—
Hall: Charles Pell.
Professional Associate of Council.
Ingram: Cecil Walter.

BERKSHIRE.

ABINGDON.

Fellow:—
Adkin: Charles Duncan.

BERKSHIRE—*continued.*

ASCOT.

Fellow:—
Keirle: Robert.

BEEDON.

Professional Associate:—
White: Walter Ernest Coates.

BUSCOT.

Professional Associate:—
Crosland: Walter.

CAVERSHAM.

Professional Associate:—
Dalgliesh: Christopher.

DIDCOT.

Fellow:—
Rich: Robert.

EATON-HASTINGS.

Professional Associate:—
Cambridge: William James.

ENGLEFIELD.

Fellow:—
Todd: Richard.

HUNGERFORD.

Fellow:—
Neate: Arthur Webb.

KINTBURY.

Professional Associate —
Heath: John Lionel.

MAIDENHEAD.

Fellows:—
Smith: Frank Braybrooke.
Webber: Henry Stanton.

Professional Associate:—
Davy: Clifton Robert.

NEWBURY.

Fellows:—
Bingham: Alfred John.
Drewcatt: Thomas.
Neate: Arthur Webb.

Professional Associate:—
Edgington: Walter.

BERKSHIRE—*continued.*

READING.

Fellows:—
Bailey : Louis Hewitt.
Butler : Albert Ernest.
Cooper : Arthur Leslie.
Egginton : Denys.
Egginton : John.
Haslam : Dryland.
Haslam : Dryland, Jun.
Millar : William Galt.
Peto : James Winder.

Professional Associates:—
Carr : Herbert Francis.
Deane : George Frederick.
Goadby : Howard.
Smith : Harry Vincent.

STRATHFIELDSAYE.

Fellow:—
North : George Frederic.

WALLINGFORD.

Fellow:—
Gale : Joseph John.

Associate:—
Wells : Alfred Dodd.

WANTAGE.

Fellows:—
Adkin : Charles Duncan.
Belcher : Edward John.

WHITLEY

Professional Associate:—
Morris : Arthur.

WINDSOR.

Fellow:—
Buckland : Frank Bowry.

WOKINGHAM.

Professional Associate:—
Laumann : Montgomery Patrick John

BUCKINGHAMSHIRE.

BOURNE END.

Professional Associate:—
Hankey : Gilbert Lionel.

BUCKINGHAM.

Fellow:—
Harrison : James Thomas.

Professional Associate:—
Smith : James.

CHESHAM.

Professional Associates:—
Butcher : Thomas Ewen.
Sanders : Francis Leonard.

BUCKINGHAMSHIRE—*continued.*

HIGH WYCOMBE.

Fellow:—
Vernon : Arthur,
Past-President.

Professional Associate:—
Phillips : William Dearlove.

HUGHENDEN.

Professional Associate:—
Mager : Sydney.

LEDBURN.

Professional Associate:—
Harrison : Cyril Henry Gilmore.

MARLOW (GREAT).

Fellow:—
Lawrence : Arthur.

NEWPORT PAGNELL.

Fellow:—
Samuel : William John.

SLOUGH.

Professional Associate:—
Duchesne : Martin Collier.

WINSLOW.

Fellows:—
Wigley : George Davys Edward.
Wigley : Sidney Prudden.

Professional Associate:—
Wigley : Herbert Henry.

CAMBRIDGESHIRE.

BABRAHAM.

Professional Associate:—
Webb : Frederic Noel.

CAMBRIDGE.

Fellows:—
Bidwell : John Evans.
Grain : Arthur Tress.
Jonas : Harry Marshall.
Lloyd : Donald.
Looker : John.
Moyes : John Helenus.
Scruby : William Thomas.

Professional Associates:—
Gray : Percy Williams.
James : Herbert Harold.
Jonas : Samuel Marshall.
Pitt : Philip Septimus.
Rutter : Arthur Lionel.
Wright : Walter Brereton.

CHEVELEY.

Professional Associate:—
Garrod : Herbert James.

CAMBRIDGESHIRE—*continued.*

ELY.

Fellows:—
Bidwell: Charles, *Vice-President.*
Bidwell: Philip Shelford.

FULBOURNE.

Professional Associates:—
Hodges: Cecil Stuart.
Hudson: William Frederick Arthur.

LINTON.

Fellow:—
Chalk: Henry Philip.

LITTLEPORT.

Fellow:—
Martin: Heber Gambling.

THORNEY.

Professional Associate:—
Smith: Cuthbert.

WISBECH.

Professional Associate:—
Davis: William Henry Harold.

CHESHIRE.

ALTRINCHAM.

Fellow:—
Hall: John Herbert.

ASHTON-ON-MERSEY.

Professional Associate:—
Pye: George Henry.

BIRKENHEAD.

Fellow:—
Mills: William Edward.

Professional Associate:—
Batterbury: Norman Boniface.

BROOKLANDS.

Professional Associate:—
Bowden: Ernest Newton.

CAPESTHORNE.

Fellow:—
Carswell: William.

CHESTER.

Fellows:—
Elphick: George Pelham.
Jones: Isaac Matthews.
Whalley: Henry Shaw.

CHESHIRE—*continued.*

Professional Associates:—
Andrews: Arthur George.
Gore: George Pym.
Roberts: John.
Tait: Frank Vincent.

CONGLETON.

Professional Associate:—
Lees: Randle Burslam.

CREWE.

Fellow:—
McCracken: William.

DODDINGTON.

Fellow:—
Loring: John.

ECCLESTON.

Fellow:—
Parker: The Hon. Cecil Thomas.

FRODSHAM.

Fellow:—
Linaker: Charles Edward.

HEATON CHAPEL.

Professional Associate:—
Pye: George Henry.

HOLMES CHAPEL.

Fellow:—
Young: Thomas John.

KNUTSFORD.

Fellows:—
Hall: John Herbert.
Smith: John Ambrose.
Smith: John Thompson.

Professional Associate:—
Earle: John Wilfred.

MIDDLEWICH.

Professional Associate:—
Sheldon: Harold.

NEW BRIGHTON.

Professional Associate:—
Johnson: Harry Labron.

CHESHIRE—*continued.*

STOCKPORT.

Fellows:—
Brady: Charles Alldis.
Brady: William Hollinshed

WILMSLOW.

Fellow:—
Cartwright: Alfred Stott.

Professional Associate:—
Halkyard: William Redford.

CORNWALL.

BUDE.

Professional Associate:—
Mackenzie: Hector John Maxwell.

LAUNCESTON.

Fellow:—
Kittow: John.

Associate:—
Cowlard: Christopher Lethbridge.

Colonial Fellow:—
Cowley: Frank.

LISKEARD.

Fellow:—
Benson: Robert Alan.

Professional Associate:—
Eliott: Arnold.

NEW QUAY.

Professional Associate:—
Cowell: Herbert Lee.

REDRUTH.

Fellow:—
Jenkin: Arthur Pearse.

ST. AUSTELL.

Professional Associate:—
Hancock: Henry Sydney, Jun.

CUMBERLAND.

ARMATHWAITE.

Professional Associate:—
Wilford: Cecil Marshall.

ASPATRIA.

Associate:—
Hill: John Smith.

BRAMPTON.

Professional Associate:—
Lee: Francis Blacklock.

CUMBERLAND—*continued.*

CARLISLE.

Fellows:—
Hayton: Joseph William.
Heskett: William James.
Richardson: George.
Rook: Joseph Taylor.

Professional Associates:—
Harlow: William Wyatt Ridgway.
Sale: Arthur Reed.

COCKERMOUTH.

Fellow:—
Watson: Herbert John.

PENRITH.

Fellows:—
Birkett: Tom.
Heskett: William James.
Hudson: James.
Little: William.

Professional Associates:—
Heskett: William Donald.
Lawrence: Charles Phillips.
Rowlandson: George Armstrong.

RAVENGLASS.

Fellow:—
Watt: Alexander.

WHITEHAVEN.

Fellows:—
Sly: William.
Stanley-Dodgson: Stanley Dickinson

Professional Associate:—
Brown: Thomas, Jun.

WORKINGTON.

Fellow:—
Potts: James.

DERBYSHIRE.

ALLESTREE.

Fellow:—
Harrison: John Edward.

BAKEWELL.

Fellow:—
Longsdon Ernest Morewood.

DERBYSHIRE—*continued.*

BEAUCHIEF ABBEY.

Fellow:—
Sampson : William.

BUTTERLEY.

Professional Associate:—
Wright : Ernest Beresford Fitzherbert.

BUXTON.

Fellows:—
Hubbersty : Henry Alfred.
May : Thomas Henry.

Professional Associate:—
Carr : Arthur Bentley.

CHAPEL-EN-LE-FRITH.

Professional Associate:—
Heathcott : Robert Vernon.

CHESTERFIELD.

Fellows:—
Barnes : George Frederick.
Byron : Augustus William.
Jeudwine : William Wynne.
Margereson : Charles Frederic.
Martin : Gilson.
Thorpe : Christopher.

DERBY.

Fellows:—
Brailsford : Henry.
Fuller : Thomas Alfred.
Hooley : Arthur John.
Orr : Cecil.
Shaw : John,
Past-President.
Shaw : John, Jun.
Tomlinson : Thomas.

Professional Associates:—
Brierley : Hugh Colley.
McCallum : Peter Service.
Thompson : Frederick Hubert.

Associates:—
Blackshaw : John Frank.
Strutt : The Hon. Frederick.

HATHERSAGE.

Fellow:—
Bruce : Robert Knight

ILKESTON.

Professional Associate:—
Tate : Joseph George.

DERBYSHIRE—*continued.*

SHIPLEY.

Fellow:—
Sebastian-Smith : Charles.

DEVONSHIRE.

BARNSTAPLE.

Fellows:—
Fox : Frederick Russell.
Thorne : Arnold.

Professional Associate:—
Southcombe : John Charles.

BEERALSTON.

Fellow:—
Ward : Daniel.

BIDEFORD.

Fellows:—
Cooper : John Groves.
Powell : Charles Reginald Evernden.
Stapledon : Ernest Allen.

Professional Associate:—
Glasson : Thomas Mc.

BRENTOR.

Professional Associate:—
Ward : Edward John.

BUCKFASTLEIGH.

Professional Associate:—
Egremont : John.

COCKINGTON.

Fellow:—
Meaby : Thomas James, Jun.

DEVONPORT.

Fellow:—
Galbraith : Samuel Haughton.

Professional Associate:—
Venning : Alfred John Meybohm.

EXETER.

Fellows:—
Bowden : John Friendship.
Drew : Henry.
Drew : Henry Alban.
Drew : John Gould,
Member of Council.
Dymond : Francis William.
Ellis : Albert Edward.
Lucas : John Archibald.
Parsons : Henry John Donne
Scott-Smith : Arthur Courtenay.
Ware : Charles Edwin.
Whittaker : Ernest Victor.
Whitton : Percy.

DEVONSHIRE—*continued.*

Professional Associates:—
Amies : Herbert Christopher.
Bulley : Horace William.
Parsons : Maurice Harry Donne.
Shearer : James Hughan.
Thomas : Reginald William.

GREENBANK.

Professional Associate:—
Lang : Frederick Bartlett.

INSTOW.

Fellow:—
Lock : William Henry.

IVYBRIDGE.

Professional Associate:—
Holditch : Charles Stanley.

KENN.

Professional Associate:—
Lumley : Frederick Robert.

KILLERTON.

Fellow:—
Taylor : Thomas William Harris.

MODBURY.

Fellow:—
Pearse : William.

Professional Associate:—
Pearse : Thomas William.

MORETONHAMPSTEAD.

Fellow:—
Loveys : Arthur Clampitt.

NEWTON ABBOT.

Fellows:—
Barker : Geoffrey Lionel.
Rendell : Arthur Stephen.
Stooke : James.

PLYMOUTH.

Fellows:—
Body : Arthur.
Body : John Bond.
Corderoy : Athelstane.
Dudley : Edgar.
Elliott : Chas.
Ward : Daniel.

Professional Associate:—
Ellis : Arthur Orange.

DEVONSHIRE—*continued.*

SALCOMBE.

Professional Associate:—
Elliott : John William Farrant.

SIDBURY.

Professional Associate:—
Champernowne : Amyas Walter.

SOUTH MOLTON.

Fellow:—
Smyth-Richards : George Cobley.

Professional Associate:—
Thorne : Richard Squire.

STONEHOUSE.

Professional Associate:—
Netten : Percy John.

TAVISTOCK.

Fellows:—
Rundle : Edward Collins.
Ward : Frank.

Professional Associate:—
Timbrell : Alan.

TEIGNMOUTH.

Fellow:—
Frost : Frederic Cornish.

TORQUAY.

Professional Associates:—
Cole : James Thomson.
Greenfield : Frederick James

TOTNES.

Fellows:—
Bourne : Robert Elliott.
Michelmore : Alfred.

YEALMPTON.

Fellow:—
Eve : Charles Gerald.

DORSETSHIRE.

DORCHESTER.

Fellows:—
Duke : Edward.
Duke : Henry.
Tory : John Edward.

DORSETSHIRE—*continued.*

EVERSHOT.

Fellow:—
Wells: William Howley.

FONTMELL MAGNA.

Professional Associate:—
Chipp: George.

MARNHULL.

Fellow:—
Allen: George.

MELPLASH.

Fellows:—
Parsons: Frank Donisthorpe.
Sanctuary: Campbell Fortescue Stapleton.

PARKSTONE.

Fellow:—
Oakley: Edward Benjamin.

POOLE.

Fellow:—
Elford: John.

SHAFTESBURY.

Fellow:—
Day: George Carleton.

STURMINSTER-NEWTON.

Fellow:—
Senior: Harry Samuel.

SWANAGE.

Fellow:—
Clifton: James Edward.

WAREHAM.

Fellow:—
Pain: George Lloyd.

Professional Associate:—
Candy: Walter Emmanuel.

WEYMOUTH.

Fellows:—
Crickmay: George Rackstrow.
Crickmay: John Edward.
Young: Harry Austin Lindsay.

WIMBORNE.

Fellows:—
Paterson: Charles.
Richards: George Edward.

DURHAM.

BARNARD CASTLE.

Fellow:—
Wells: Edwin.

BRANCEPETH.

Fellow:—
Peirson: Henry Thomas.

CONSETT.

Fellow:—
Oliver: Charles Edward.

DARLINGTON.

Fellow:—
Eade: Arthur W. F.

DURHAM.

Fellows:—
Rowlandson: Christopher.
Wall: George Young.

Professional Associates:—
Pegg: John Thomas.
Rowlandson: Samuel Messiter, Captain

SEAHAM HARBOUR.

Fellow:—
Brydon: Robert.

Professional Associate:—
Lake: Vivian Davey.

SOUTH SHIELDS.

Fellow:—
Hindmarsh: Ralph Frederick.

STOCKTON-ON-TEES.

Fellows:—
Curry: Henry John.
Rodham: John.

SUNDERLAND.

Fellows:—
Cochrane: William James.
Hedley: John Hunt.
Miller: John Ezra.

TANTOBIE.

Fellow:—
Clark: Nathaniel.

Professional Associate:—
Clark: Nathaniel, Jun.

ESSEX.

ARDLEIGH.

Fellow:—
Fenn : John.

BIRDBROOK.

Fellow :—
Hood : Thomas.

BRAINTREE.

Fellow :—
Vaizey : John George.
Professional Associate :—
Stallard : Harold Orlando.

BRENTWOOD.

Professional Associate :—
Fothergill : James Edward.

CASTLE HEDINGHAM.

Fellow :—
Balls : James Mayhew.

CHELMSFORD.

Fellows :—
Chancellor : Frederick.
Hilliard : George Edward.
Professional Associates :—
Hilliard : Hugh Neville.
Smith : Hugh.
Associate :—
Gepp : Charles Bramston Osborne.

CHIGWELL.

Fellow :—
Savill : Alfred.

COGGESHALL.

Fellow :—
Surridges : Joseph Smith.

COLCHESTER.

Fellows :—
Fenn : John.
Greenwood : Joseph.
Stanford : Charles Maurice.
Start : Joseph William.
Professional Associates :—
Cowell : Wilfred Lee.
Daniell : Frederick Stanley.
Grimwade : Henry.
Sansom : Willie Stanley Venn.

EPPING.

Fellow :—
Sworder : Hugh.

ESSEX—*continued.*

GRAYS.

Fellow :—
Cobham : Charles.

HATFIELD PEVEREL.

Fellow :—
Strutt : The Hon. Edward Gerald, *Member of Council.*

HUTTON.

Professional Associate :—
Porter : Douglas David.

ILFORD.

Professional Associate :—
Tallboy : Frederick James.

INGATESTONE.

Fellow :—
Coverdale : Frederick John.

MALDON.

Fellow :—
Parker : Charles Alfred.

ORSETT.

Fellow :—
Kemp-Smith : James Frederick.

RAYNE.

Fellow :—
Newman : Thomas Harry.

ROMFORD.

Professional Associate :—
Slade : James Harcourt.

SAFFRON WALDEN.

Fellow :—
Nockolds : Alfred George.
Nockolds : Martin.
Professional Associates :—
Nockolds : Martin Charles Hubert.
Wilkes : John Fiske.

SOUTHEND-ON-SEA.

Fellow :—
Tapp : Arthur.
Professional Associate :—
Berry : Henry Frank.
Phillips : Francis John.
Phillips : George Cawkwell.
Smith : Douglas Henry.
Wood : Rowland Harry.

ESSEX—*continued.*

WALTHAM ABBEY.

Fellow:—
Chetwood: Stephen.

WANSTEAD.

Fellow:—
Morris: George Field.

Professional Associate:—
Walter: Sydney James.

WENDEN.

Professional Associate:—
Robinson: Martin Catlin.

WITHAM.

Professional Associate:—
Strutt: John James.

WOODFORD.

Fellows:—
Lee: Philip Shirling.
Wyles: John Walter.

Professional Associates:—
Houghton: William Charles.
Kemsley: William Hugh.

GLOUCESTERSHIRE

BRISTOL.

Fellows:—
Addie: Peter.
Cotterell: Albert Player Isaac.
Munro: Philip.
Napier: Henry Burroughes.
Petter: Albert Edward.
Scammell: Thomas.
Sturge: Robert Fowler.
Sturge: William.
Past-President.

Professional Associates:—
Goodbody: Frederick Allen Sturge.
Haines: Alfred Hubert Jeston.
Holbrow: Herbert Oliver.
Kieser: William Henry Gustav.
Marchant: Robert Charles.
Oaten: Alfred Edward.
Sturge: Theodore.
Thomas: Percival Hartland.
Wright: Charles Lee.

CHELTENHAM.

Fellow:—
Villar: James.

CIRENCESTER.

Fellow:—
Anderson: Robert.

Professional Associate:—
Swanwick: Bruce.

Associate:—
Kinch: Edward.

GLOUCESTERSHIRE—*continued.*

FAIRFORD.

Professional Associate:—
Milbourne: John Seymour

FALFIELD.

Fellow:—
Harle: John Joseph.

GLOUCESTER.

Fellows:—
Bruton: Henry William.
Ellis: Arnold Robertson.
Knowles: Henry.

Professional Associates:—
Browning: Sydney Brodrick.
Bruton: Basil Vassar.
Turner: Drysdale.

KINGSWOOD.

Professional Associate:—
Saise: Alfred John.

TODDINGTON.

Fellow:—
Wise: Charles Dacres.

HAMPSHIRE.

ALDERSHOT.

Fellows:—
Isted: Samuel Eveland.
Raves: Bertram Adams.

ALTON.

Fellow:—
Studdy: Thomas Edward.

Associate:—
Downie: Alexander Francis Mackenzie.

ANDOVER.

Fellows:—
Ellen: Frederick Charles.
Herbert: Allan.
Westbury: George Henry.

Professional Associates:—
Hooper: Alfred Frederick.
Mumby: Elvin Fowler.
Tomlin: William, Jun.

BASINGSTOKE.

Fellows:—
Dowsett: Charles Finch
Raynbird: Hugh Edward.
Simmons: Charles Franklin.
Simmons: William Anker.

BISHOP'S WALTHAM.

Fellow:—
Austin: Richard, Jun.

HAMPSHIRE—*continued.*

BOURNEMOUTH.

Fellows:—
Evans-Vaughan : Henry.
Fox : Ernest.
Fox : William.
Hankinson : Thomas James.
Hawker : Harry Edwin.
Lane : Ernest Lacan.
Rebbeck : Edward Wise.
Rebbeck : Thomas Warren.
Roker : Mitchel John.
Walter : Thomas James.

Professional Associates:—
Catleugh : William Denzil.
Dancaster : Arthur.
Evered : Gilliebrand Elwin.
Hankinson : Francis Henry.
Insley : George Pitron.
Satchell : Charles.

BROCKENHURST.

Fellow:—
Curtis : Charles Edward.

CADLAND.

Professional Associate:—
Meyer : Horace Leycester.

CARISBROOKE.

Fellow:—
Marvin : Albert Edward.

CHILLAND.

Fellow:—
Arnold : Francis.

CLATFORD.

Fellow:—
Lywood : Edwin.

COMPTON.

Fellow:—
Eames : Edward.

EAST TYTHERLEY.

Fellow:—
Robey : Robert.

FAREHAM.

Fellows:—
Appleby : John Henry James.
Pain : James.

FARINGDON.

Fellow:—
Warner : Henry.

FORDINGBRIDGE.

Fellow:—
Hannen : Reginald St. John.

GOSPORT.

Fellows:—
Robinson : Edmund Arthur.

Professional Associates:—
Field : Leonard Martin.
Harvey : Frederick Charles.

HAMPSHIRE—*continued.*

HAMBLEDON.

Fellow:—
Arnold : Francis.

HARTLEY WINTNEY.

Professional Associate:—
Cable : Charles Vincent.

HAVANT.

Fellow:—
Stallard : Alfred Edwin.

HIGHCLERE.

Fellow:—
Rutherford : James Augustine.

HORNDEAN.

Professional Associate:—
Blore : Charles Gordon.

LIPHOOK.

Professional Associates:—
Goodchild : Walter Charles.
Soutter : Ernest.

LISS.

Professional Associate:—
Dickinson : James Murgatroyd.

LYMINGTON.

Professional Associate:—
Ouvry : Peter Arnold.

NEWPORT.

Fellow:—
Way : Henry James.

PETERSFIELD.

Fellows:—
Goldsmith : Douglas Fleet.
Mitchell : George Sharman.

PORTCHESTER.

Fellow:—
Wyatt : Archibald.

PORTSMOUTH.

Fellows:—
Blake : Frederick.
Coleman : Thomas Everit.
Hall : Ernest.
Jenkins : Richard James.
King : Thomas.

Professional Associate:—
White : Arthur Vivian.

PORTSEA.

Fellows:—
Kent : George Edward.
King : Thomas.

Professional Associate:—
Murtough : Joseph.

ROTHERWICK.

Professional Associate:—
Bradshaw : Harold Claud.

HAMPSHIRE—*continued.*

RYDE.

Fellows:—
Cocks : Samuel Roger.
Riddett : William Hammond.

Professional Associate :—
Widdicombe : Charles Edwin.

SHOLING.

Professional Associate :—
Heal : Herbert George.

SOUTHAMPTON.

Fellows :—
Blizard : John Henry.
Burnett : Alfred Andrew.
Hill : William Burrough.
Lemon : James.
Perkins : Walter Frank.
Sanders : Ingalton.
Smith : Frederick John.

Professional Associate :—
Masters : William Henry.

SOUTHSEA.

Fellows:—
Kent : George Edward.
Vernon-Inkpen : George Charles.
Walmisley : Joseph William.

Professional Associate :—
Walker : James William Boyd.

SPARSHOLT.

Professional Associate :—
Sparrow : Wm. Hugh.

STRATHFIELDSAYE.

Professional Associate :—
Lambert : George Arrow.

UPTON GRAY.

Associate :—
Seth-Smith : Frederick.

VENTNOR.

Fellow:—
Saunders : Theodore Ridley.

WEST COWES.

Fellow :—
Bird : James Binfield.

WINCHESTER.

Fellows:—
Gudgeon : George Edward.
Harris : James.
Newton : Thomas Edwin.
Sawyer : John Ashton.
Smith : George Alfred.
Stopher : Thomas.

Professional Associate:—
Arnold : Allen.

WINCHFIELD.

Fellow :—
Wetherall : Harry Lancaster.

Professional Associate :—
Bruce : Alexander David.

HEREFORDSHIRE.

BRAMPTON-BRYAN.

Professional Associate :—
Smith : Douglas.

BROMYARD.

Fellow :—
Millyard : John William.

HEREFORD.

Fellows :—
Godsell : George Herbert.
Haywood : William Matthews.
Parker : John.

Professional Associates :—
Hewitt : William.
Orchard : Alfred Dean.
Stooke : John Edwin Hellyar.

HOLME LACY.

Fellow :—
Hunt : George Whitaker.

LEDBURY.

Professional Associate :—
Gurney : Ronald George.

ROSS.

Professional Associate :—
Utterton : Frank Le Couteur.

HERTFORDSHIRE.

BARKWAY.

Professional Associate:—
Balding : Albert.

BARNET.

Fellows :—
Child : Fred.
Hasluck : Lancelot Gerald.
Taylor : Edward Fergusson.

Professional Associates :—
Coles : James Hatch.
Howard : Edmund.

BISHOP'S STORTFORD.

Professional Associate :—
Houblon : Francis Archer.

BRICKENDONBURY.

Professional Associate :—
Gould : Harmer.

BROXBOURNE.

Professional Associates :—
Rand : John.
Salwey : Arthur.

BUNTINGFORD.

Fellow :—
Tallent : Edwin James.

CHESHUNT.

Fellows :—
Crawter : John.
Crawter : John, Jun.
Debenham : Frank Gissing.

Professional Associate :—
Lawrence : John.

HERTFORDSHIRE—*continued.*

ELSTREE.

Fellow:—
Burnett: George John Mulcaster.

HARPENDEN.

Professional Associate:—
Grove: Richard Thomas.

HATFIELD.

Professional Associate:—
Cobbe: Henry Alexander.

HERTFORD.

Fellow:—
Austin: Russell Gardiner.

Professional Associate:—
Cocks: John Frederick.

HITCHIN.

Fellows:—
Burr: Harry.
Shilcock: James.

Professional Associates:—
Lindsell: Philip Janson.
Taylor: Samuel Davis.

MUCH-HADHAM.

Associate:—
Gayton: Charles.

RICKMANSWORTH.

Fellows:—
Couchman: Henry Boteler.
Sly: Joseph Townson.

Professional Associates:—
Carter: Alfred Presley.
King: William Isaac.

ROYSTON.

Fellow:—
Thurnall: John Edward.

Professional Associate:—
Rowley: William Taylor.

ST. ALBANS.

Fellows:—
Low: Robert John.
Rumball: Aubrey.
Woodman: Thomas Foster.

Professional Associates:—
Buttenshaw: Ernest Newth.
Driver: John Robert Farrant.
Lewis: John.
Morrison: Gerard Donald.
Morrison: Ivor Charles.
Westbrook: Charles Edward.
Young: William.

TOTTERIDGE.

Professional Associate:—
Smith: Cuthbert.

HERTFORDSHIRE—*continued.*

TRING.

Fellows:—
Brown: Arthur Macdonald.
Brown: Frank John.
Foulkes: Septimus Giffard.

Professional Associates:—
Francis: Ronald Garnham.
Raymond: James Owen.

WARE.

Fellows:—
Duvall: John William.
Hunt: Thomas.

WARGRAVE.

Fellow:—
Coote: Stanley Victor.

WATFORD.

Fellows:—
Pridmore: Albert Edward.
Weall: John.
Weall: John Graham.

Professional Associates
Brown: William Edward.
Finch: Clement Robert.
Sedgwick: Rupert William.
Taylor: John Francis White.

Associate:—
Thomas: Hubert.

HUNTINGDONSHIRE.

BRAMPTON.

Fellow:—
Bird: John.

CALDECOTE.

Fellow:—
Preedy: Frederic.

HUNTINGDON.

Fellows:—
Beck: Arthur Clement.
Looker: John.
Theakston: William Pease.

ST. NEOTS.

Fellow:—
Peppercorn: John Hutchinson.

Professional Associate:—
Peppercorn: John Arthur.

KENT.

ASHFORD.

Fellows:—
Burrows: Alfred John.
Hobbs: John.
Waterman: James.

Professional Associates:—
Brown: Alexander.
Burrows: Frank Herbert.

KENT—*continued.*

BECKENHAM.

Fellow:—
Lovegrove : Henry.

Professional Associates:—
Ovenden : Charles.
Tanner : William Hugh.

BEXLEY.

Fellows:—
Lucas : William Edward.
Walton : Leon Maitland.

BOUGHTON-MONCHELSEA.

Fellow:—
Smith : George.

Professional Associate:—
Smith : Hubert George.

BROMLEY.

Fellows:—
Barker : Charles.
Latter : Hugh Robinson.
Lepper : John Harrage.
Payne : Frederick.

Professional Associates:—
Sandell : Stanley Lunau.
Strudwick : Frank Edward.
Strudwick : Philip.
Waller : Harry Baines.

CANTERBURY.

Fellows:—
Amos : Frank.
Ashenden : Leonard.
Harvey : John James Sayer.
Jennings : William Joseph.
Kingsford : Percy Hamilton.
Wacher : Thomas.

Professional Associates:—
Adams : Gerald James Frederick.
Wacher : Thomas Blake.

CHATHAM.

Fellows:—
Barkshire : Charles Robert.
Dunstall : Herbert Henry.

Professional Associates:—
Cole : Francis Joseph.
Stanton : Frederick William Schultheiss.

CHISLEHURST.

Fellow:—
Chattell : Francis Loriot.

DARTFORD.

Fellows:—
Dann : Henry.
Prall : Herbert Alexander

Professional Associate:—
Tiffin : Thomas Edward.

KENT—*continued.*

DEAL.

Fellows:—
Finn : Fred., Jun.
Honeyball : Fred Thomas.

DOVER.

Fellows:—
Fry : George Frederick.
Hayward : Frederick George.
Hayward : Henry.
Walmisley : Arthur Thomas.

Professional Associate:—
May : William Charles.

EDEN BRIDGE.

Fellow:—
Ewing : Guy Beaumont.

Professional Associate:—
Soper : Harold.

ERITH

Professional Associate:—
Stoneham : Edward Russell.

FAVERSHAM.

Fellow:—
Neame : Frederick, Jun.

FOLKESTONE.

Fellows:—
Barton : Harry Howe.
Temple : Frederick Wilson.

Professional Associates:—
Meacher : Edward Ernest.
Moody : Herbert John.

GRAVESEND.

Fellows:—
Cobham : George William
Dann : Henry, Jun.

HERNE BAY.

Fellows:—
Gripper : Joseph Edward.
Perriam : Alfred Joseph.

HIGHAM.

Fellow:—
Cobb : Herbert Mansfield.

Professional Associates:—
Cobb : Henry Frederick.
Cobb : Robert.

HUNTON.

Professional Associate:—
Hubble : Lloyd Unsworth.

HYTHE.

Professiona Associates:—
Buckwell : Robert Leighton.
Wilks : Ernest Stringer.

KENT—*continued.*

IGHTHAM.

Associate:—
Luard : Major-General Charles Edward, R.E.

LINTON.

Professional Associate:—
Champion : George Ernest.

LYDD.

Fellows:—
Finn : Adolphus.
Reeve : Kingsnorth.

MACKNADE.

Professional Associate:—
Neame : Frederick Ivo.

MAIDSTONE.

Fellows:—
Cox : Walter Theodore.
Day : William, Jun.
Seymour : Richard Arthur Hamilton.
Tootell : Joseph.
Waring : Herbert Fuller.
Waterman : Albert James.

Professional Associates:—
French : Arthur Martin.
Green : Thomas John.
Mills : Daniel.
Peppercorn : Henry McArthur.

MARGATE.

Professional Associate:—
Mockett : William Sherwood.

PADDOCK WOOD.

Fellow:—
Tompsett : William Robert.

RAMSGATE.

Fellows:—
Hinds : Henry.
Page : Stanley Hatch.
Vinten : Harold Bertram.

Professional Associate:—
Freeman : Reginald Frank Lyne.

ROCHESTER.

Fellows:—
Cooke : Henry.
Homan : Franklin George.
Homan : Hubert Franklin.
Kidwell : John.
Prall : Herbert Alexander.

SANDGATE.

Professional Associate:—
Lancaster : Samuel.

SELLING.

Fellow:—
Grover : Philip Gordon.

KENT—*continued.*

SEVENOAKS.

Fellows:—
Cronk : Charles Tylee.
Cronk : Edwyn Evans.
Cronk : Frank.
Cronk : William Henry.
Mann : Jabez.

Professional Associates:—
Brooker : Frederick George.
Love : James Barr.
Peile : Charles Frederick.

SHEERNESS.

Professional Associate:—
Jones : John Arthur.

SHOREHAM.

Fellow:—
Hooper : Cecil Henry.

SHORNCLIFFE.

Fellow:—
Taylor : Edgar Charles.

SIDCUP.

Fellow:—
Snelling : Henry.

Professional Associate:—
Farnham : William Augustus.

SITTINGBOURNE.

Fellows:—
Cowper : William Shapland.
Jackson : William Tress.

Professional Associates:—
Cowper : Richard William.
Elgar : Walter Robinson.
Jackson : Richard Stephens.
Jarrett : Thomas William.

SNODLAND.

Fellow:—
Wood : William.

SOUTHBOROUGH.

Professional Associate:—
Seale : Percy James.

TEMPLE EWELL.

Fellow:—
Phillips : Frederick Hamilton.

TENTERDEN.

Fellows:—
Osenton : George.
Waterman : James

THONG.

Fellow:—
Scriven : Charles Herbert.

TONBRIDGE.

Fellow:—
Tompsett : William Robert.

Professional Associates:—
Clark : Herbert.
Sturgess : John Moore.

KENT—*continued.*

TUNBRIDGE WELLS.

Fellows:—
Brackett: Arthur William.
Brackett: Frederick Henry.
Brackett: William.
Freeman: Sydney.
Haddock: Roland.
Langridge: George.
Vice-President.
Parris: Charles John.
Roper: William.
Tewson: Edward Arthur.

Professional Associates:—
Jull: Robert Charles.
Langridge: Walter Frederick.
Murdock: Clive.
Rush: Arthur Leslie.
Simpson: Leslie Shepherd.

WESTERHAM.

Fellow:—
Rudkin: Arthur John.

WEST FARLEIGH.

Fellow:—
Rawlins: William.

WINGHAM.

Fellow:—
Elgar: J. Edward.

Professional Associate:—
Elgar: Charles John.

WOOLWICH.

Fellows:—
Burns: Gavin James.
Elton: Herbert Averill.

WYE.

Professional Associates:—
Brown: James Carter.
Orwin: Charles Stewart.

LANCASHIRE.

ACCRINGTON.

Professional Associate:—
Foster: William Arthur.

ANSDELL.

Professional Associate:—
Taylor: Edwin Thurlow.

ASHTON-UNDER-LYNE.

Professional Associate:—
Hodgkinson: James Henry.

BARROW-IN-FURNESS.

Professional Associates:—
Cornwell: William James.
Pearson: Thomas Gibson.

LANCASHIRE—*continued.*

BLACKBURN.

Fellows:—
Bertwistle: James.
Gradwell: Arthur Richard.
Holt: George Henry.
Robinson: George Edward.

Professional Associate:—
Ruddle: Frederick Charles.

BOLTON.

Fellows:—
Coope: Samuel.
Thompson: Francis William.

BURNLEY.

Professional Associates:—
Keighley: Samuel.
Wilson: James Calvert.

BURY.

Fellows:—
Cartwright: Joshua.
Hopkinson: Alfred.
Nuttall: Herbert.

Professional Associte:—
Mitchell: Lewis.

CARNFORTH.

Professional Associates:—
Harrison: Ernest.
Jackson: Robert Ewan.
Robinson: Josslyn Alleyne.

CHORLTON-CUM-HARDY.

Professional Associate:—
Baldwin-Wiseman: William Ralph.

CLAYTON-LE-MOORS.

Fellow:—
Fletcher: Thomas.

CLITHEROE.

Fellow:—
Parmeter: Frank.

KIRKHAM.

Professional Associate:—
Schofield: Peter.

LANCASTER.

Fellow:—
Roper: John Simpson.

Professional Associate:—
Bradshaw: Arthur George.

LEIGH.

Fellow:—
Fairclough: William.

Professional Associates:—
Crabtree: Percy.
Selby: John Basely.

LANCASHIRE—*continued.*

LEVENSHULME.

Fellow:—
Nesbitt : John Oscar.

LIVERPOOL.

Fellows:—
Beckwith : Henry Langton.
Hartley : Henry.
Kirby : Edmund.
Kirby : Edmund Francis Joseph.
Lancaster : Charles Holland.
Pain : Coard Squarey.
Thomas : Glegge.
Wainwright : Thomas Taylor.

Vice-President.
Wrennall : William.
Young : Edward Herbert.
Young : Oswald William.

Professional Associates:—
Appleby : Frank Sefton.
Blundell : Harry.
Blunt : Francis Edward.
Grierson : John Campbell.
Newling : Arthur Noel.
Wilton : James Percy.
Young : Herbert Oswald.

Associate :—
King : William.

LYTHAM.

Fellows:—
Fair : James Stretton.
Rea : John Marcus Beaumont.

Professional Associate:—
Perrins : George Latham.

MANCHESTER.

Fellows:—
Bancroft : Frederick Herbert.
Banks : Thomas.
Batey : Henry Simpson.
Bowden : John.
Brady : Ralph Hollinshed.
Bridgford : Ernest James.
Bridgford : Col. Sir Robert, K.C.B.
Campbell : Henry Hunter.
Cross : William Haslam.
Dorning : Arthur Harry.
Dunlop : Dugdale Oakeley.
Eagle : William.
Earle : Thomas Algernon.
Earnshaw : Jacob.
Fairclough : William.
Fowler : Alfred Mountain.
Hall : John Herbert.
Holden : John.
Hurrell : John Weymouth.
Jackson : Charles.
Kerr : John Murray.
Larmuth : George Horatio.
Lomas : Albert Daniel.
Maxwell : Francis William.
Meade : Thomas de Courcy.
Meller : William Galloway.

LANCASHIRE—*continued.*

Fellows:—
Pierson : Charles.
Shelmerdine : Henry.
Taylor : Thomas Walters.
Wallis : John David.
Watts : Samuel Lingard.
Wilson : Lawrence Richard.
Wilson : Thomas Silk.
Wilson : William Edward.
Wilson : William Henry.

Professional Associates:—
Bridgford : Leo Appleton.
Corbett : John Rooke.
Harrison : William.
Jackson : Alfred Ernest.
Marrian : Harold Greenwood.
Morrison : Daniel.
Savage : Tom Albert.
Witham : James Bernard.

MILNROW.

Professional Associate:—
Foster : William Howard.

ORMSKIRK.

Fellow:—
Wolfenden : Thomas.

PATRICROFT.

Fellow:—
Ellis : Francis.

PRESTON.

Fellows:—
Birch : Walter de Hoghton.
Fair : James Stretton.
Fair : Thomas.
Fletcher : Thomas.
Gregson : George Ernest.
Johnston : Walter Henry.
Myres : John James.
Nevett : Francis Walter.
Nevett : Thomas.
Park : Philip.
Rea : John Marcus Beaumont.

Professional Associates:—
Collyer : Daniel William.
Cottam : Harry.
Dixon : Francis Edward.
Turner : Henry.
Vince : Clement Harwood.

ROCHDALE.

Fellow:—
Brocklebank : John.

SOUTHPORT.

Fellow:—
Barrow : Thomas Robert.

Professional Associate :—
Bastable : John Daniel.

ST. HELEN'S.

Professional Associate:—
Davidson : Richard Bruce.

LANCASHIRE—*continued.*

ULVERSTON.

Professional Associate :—
Banks : John, Jun.

WARRINGTON.

Fellows :—
MacIver : Colin.
Secker : John Eustace.
White : John.

Professional Associate :—
Shotton : John Sidwell.

WIGAN.

Fellow :—
Fair : Arthur Edward.

Professional Associate :—
Walker : Howard James.

LEICESTERSHIRE.

ASHBY-DE-LA-ZOUCH.

Fellows :—
German : George.
German : George, Jun.
German : Harry.
German : John,
Member of Council.

Professional Associates :—
Joyce : Harry Ward.
Wells : Arthur Harvey.

ATHERSTONE.

Professional Associate :—
Burnett : John.

BELGRAVE.

Professional Associate :—
Luke : John, Jun.

BLACKFORDBY.

Fellow :—
Joyce : John Hall.

FRISBY-ON-THE-WREAKE.

Fellow :—
Perkins : Joseph.

HINCKLEY.

Professional Associate :—
Crump : Edward Harold.

LEICESTER.

Fellows :—
Clare : Edward Lovell.
Clough-Taylor : Horace George.
Draper : Arthur Thomas.
Everard : John Breedon.
Goodacre : John.
Haigh : Thomas Frederick.
Harrison : Frederick.
Hincks : Henry Thorp.
Rolleston : Sir John Fowke Lancelot, M.P., *Past-President.*

LEICESTERSHIRE—*continued.*

Fellows :—
Rolleston : Wm. Gustavus Stanhope.
Sebastian-Smith : Charles.
Wade : George Tempest.

Professional Associates :—
Beasley : John Arthur Llewellyn.
Davis : Neville Brookes.
Keay : William.
Orton : William Goodacre.
Plant : William.
Snow : Henry Cyprian.
Thompson : John Clulow

LOUGHBOROUGH.

Fellows :—
German : Harry.
Hampton : Willie Thomas.
Hodson : George.
Woolley : W. Edward,
Member of Council.

Professional Associate :—
Holbecke : Æmilian Henry.

MARKET HARBOROUGH.

Fellows :—
Coales : Herbert George.
Fisher : Charles Browning.
Holloway : Harry Hownam.

MOUNTSORREL.

Fellow :—
Martin : Robert Frewen.

NAILSTONE.

Fellow :—
Thorpe : John.

STOUGHTON.

Fellow :—
Burroughes : Charles Fitzpatrick.

THURNBY.

Professional Associate :—
Laird : Ninian P.

WOODHOUSE.

Fellows :—
Humphreys : Henry.
Humphreys : John Henry.

LINCOLNSHIRE.

ALFORD.

Fellow :—
Higgins : Frederic.

BOSTON

Fellow :—
Hawley : Sir Henry Michael, Bt.

BRATTLEBY.

Professional Assocate :—
Wright : Phili Chetwood

LINCOLNSHIRE—*continued.*

CAYTHORPE.

Fellow:—
Crofts: Ewan Nevile.

GRANTHAM.

Fellow:—
Manners: Henry Alfred.

Professional Associate:—
Beasley: Thomas Calvert Platt.

Associate:—
Scott: The Hon. Henry Robert.

HOLBEACH.

Fellow:—
Abbott: William.

HORKSTOW.

Fellow:—
Turton: Edward James.

LINCOLN.

Fellows:—
Legard: Digby Charles.
Woolley: Reginald.

LOUTH.

Fellow:—
Mason: Charles.

SPALDING.

Fellow:—
Kingston: Samuel.

STAMFORD.

Fellows:—
Corby: Joseph Boothroyd.
Richardson: Charles.
Richardson: James.

Professional Associate:—
Johnson: William Inglis.
Stone: Cyril Frank.

UFFINGTON.

Fellow:—
Tremlett: Walter William.

WAINFLEET.

Fellows:—
Tindall: Charles William.
Walker: George Booth.

LONDON AND NEIGHBOURHOOD.

Fellows:—
Abbott: William.
Abrams: Benjamin Percy.
Adams: Henry.
Addiscott: Henry Hugh.
Adkin: Benaiah Whitley.
Allen: Percy.
Andrews: John.
Angel: Francis Houghton.
Anscombe: Ernest.

LONDON AND NEIGHBOURHOOD—*continued.*

Fellows:—
Arding: Charles Bennett.
Arno: Samuel.
Assiter: Harry G.
Ault: Edwin.

Badcock: Philip.
Baddeley: Bernard Beresford.
Ball: William Alfred.
Banks: Frederick Stuart Angus.
Barfield: Frederick Henry.
Barker: Frederick George.
Barker: Horace Richard.
Barnes-Williams: Thomas.
Barns: Stephen Allen.
Barratt: Frederic William.
Barry: Dennett Heber.
Bate: Thomas.
Batstone: Rowland Robert.
Batterbury: Thomas.
Batting: Walter.
Baxter: George.
Beadel: Maurice Frederick.
Beale: Robert John
Bedells: Charles Herdert.
Beken: George.
Beken: George Kingsnorth.
Beken: Walter.
Bell: Herbert Owen.
Bellingham: Archibald Turner.
Bennett: Thomas Oatley.
Beven: Septimus.
Bingham: Alfred John.
Bingham: Frederick Henry.
Bingham: Reuben.
Bird: Walter.
Blackbourn: Henry.
Blackford: Arthur.
Blake: Edwin Holmes.
Blake: William John.
Blakemore: William Agutter.
Blashill: Thomas.
Member of Council.
Bliss: Thomas Cushway.
Blunt: Montague Cecil.
Bolam: Charles Godfrey.
Bolden: John Leonard.
Bond: Douglas Vale.
Booker: Algernon Erskine.
Booth: Gilbert William.
Boulting: Frederick Edward.
Bowden: Harry.
Bowdich: John.
Bowditch: Henry.
Boxshall: Henry Edwin.
Boyd: John Jermyn.
Bradley: James William.
Breach: Benjamin I'Anson.
Breeds: Arthur Owen.
Brereton: Franc Sadleir.
Brereton: Thomas Bloomfield Sadleir
Brewer: Frank John.
Briant: Robert.
Bridgewater: Bentley James.
Brighton: George Lawrence.
Brinsley: Herbert George William.
Brooks: Charles William.
Brooks: John McMullen
Brooks: Phillip Fuller.

LONDON AND NEIGHBOURHOOD—*continued.*

Fellows:—

Brown: Alexander Burnett.
Brown: Arthur Allen.
Brown: Frederick.
Brown: George James.
Brown: George Turville.
Brown: William Henry.
Browne: Flint.
Buckland: Alfred Virgoe.
Buckland: Henry Duncan.
Buckland: Sidney Crawford.
Bull: Alfred Edwin.
Bull: Walter.
Burchell: Sidney Herbert.
Burgess: Henry Herbert Phillip.
Burmester: John William Stanley.
Burnett: David.
Burton: Reginald Robert.
Burroughes: Thomas Henry.
Bushell: Henry.
Byron: Augustus William.

Cable: James M.
Cæsar: Charles Edward.
Carew: John Theodore.
Carritt: Ernest.
Carpenter: Evan George.
Carpmael: Harold.
Castell: Charles Smith.
Castle: Sydney Charles Courtenay.
Castle: William Henry Baldwin.
Chambers: Theodore Gervase.
Chancellor: Frederick.
Chapman: George James.
Chapman: Henry James.
Charles: Richard Stafford.
Chart: Christopher.
Chattell: David James.
Chatterton: George.
Chesterton: Frank Sidney.
Chesterton: Sidney Rawlins.
Cheston: Chester.
Cheston: Horace.
Chew: Henry Victor.
Child: Fred.
Chinnock: Frederick George, *Member of Council.*
Christy: Archibald Ernest.
Clark: Samuel.
Clarke: Ernest Seymour.
Clarke: George Ernest.
Clarke: Howard Chatfeild, *Member of Council.*
Clarke: Percy Henry.
Clarke: Stanley Chatfeild.
Clarkson: John.
Clarkson: William.
Clarkson: William, Jun.
Clifton: William Edward.
Clutton: John Henry.
Clutton: Ralph.
Clutton: Robert George.
Cobb: Herbert Mansfield.
Collier: Walter Henry.
Collingham: John Cyril Lees.
Collins: Henry Hyman.
Collins: Marcus E.
Colyer: Frederick.
Commin: Frederick James.

LONDON AND NEIGHBOURHOOD—*continued.*

Fellows:—

Conder: Alfred.
Cooper: John Robert.
Cope: Henry James.
Corderoy: Athelstane.
Corderoy: George.
Cranfield: William Bathgate.
Creswell: William Thomas.
Crickmay: George Rackstrow.
Crier: John Thomas.
Crockett: Edwin Arthur Brassey.
Cronk: Edwyn Evans.
Cronk: Frank.
Cross: Arnold Charles Martin.
Cross: Arthur George.
Crouch: James Leonard.
Crowther: Keston Nelson.
Cruwys: Robert.
Culverhouse: Cecil Goldar Fearn.
Currey: Percivall, *Honorary Secretary.*
Curtis: Robert Leabon.
Cutler: George Alfred.
Cuxson: George Austin Pryce.

Dangerfield: Thomas Samuel.
Darch: John.
Dash: Roland Ashford.
Daubney: Charles Archibald.
Davies: David Thomas.
Davies: George Humphreys.
Davis: Charles James.
Daw: William Herbert.
Deacon: Thomas Mark.
Debenham: Frank Bridgewater.
Debenham: Frank Gissing.
Debenham: Frederic Kersey.
Debenham: Horace Bentley.
Dendy: William Cooper.
Dinwiddy: Donald.
Dinwiddy: Thomas.
Doll: Charles Fitzroy.
Dollar: Peter.
Done: John James.
Downing: Frederick.
Downing: Henry Philip Burke.
Draper: Edwin Maxwell.
Driver: Arthur Charles.
Driver: Charles William.
Driver: Robert Manning.
Drury: Edward Dru.
Duncan: James Morison.
Dunn: William Henry.
Durlacher: Alexander Percy.
Dyball: Harvey.
Dyer: William John.

Eason: Edward William.
Egerton: Hubert Decimus.
Filoart: Frederick Edward.
Eldridge: Herbert.
Elgood: Frank Minshull.
Ellis: Alfred Cave.
Ellis: Frederick.
Ellis: Herbert Moates.
Ellis: Ralph Staples.
Ellis: Richard Adam.
Elwell: William Henry.
Emery: Arthur James.

LONDON AND NEIGHBOURHOOD—*continued.*

Fellows:—

Evans: George.
Eve: William.
Eve: William Harold.
Everington: John.
Eves: Francis George Bertram.
Eves: William Lionel.

Farmer: Edmund.
Farmer: Hugh Cecil.
Farnan: Henry Richard.
Farrar: Sidney Howard.
Farthing: Walter Thomas.
Fitt: Harry Charles.
Fleetwood: George.
Fletcher: Banister Flight.
Fletcher. Herbert Phillips.
Flint: William Hurst.
Ford: Lawton Robert.
Ford: Solomon.
Foster: Charles Rolls.
Foster: Frank.
Foster: James Herbert Furmedge.
Fowler: Henry.
Fowler: Sydney.
Fox: Edwin.
Frampton: Alfred.
Francis: George Futvoye.
Francis: Leon Albert.
Franklin: Arthur Thomas.
Freeman: Sydney.
Fry: Joseph Harry.
Fuller: Harry.
Fuller: Herbert Henry.
Furber: Herbert.
Furber: Percy Norman.

Gairdner: Edward James
Gale: Arthur John.
Gale: Ernest Sewell.
Galsworthy: Frederick Thomas.
Gamble: Sidney Gompertz.
Gandy: James.
Gardiner: Robert Strachan.
Garrood: Thomas William M.
Gate: Alfred Joseph.
Gate: Henry Arthur Armytage.
Geddes: Andrew Donald.
Gibbon: William Jacomb.
Giddy: Osman Horton.
Gilbert: William Henry Sainsbury
Girdwood: James.
Glasier: George Henry Brougham
Gleed: Richard Cummings.
Glover: Henry Alexander.
Goldsmith: William.
Goodby: Howard.
Goodchild: Josiah.
Goodwyn: Leonard William.
Gordon: Alexander.
Gore: Spencer W.
Goulding: Arthur.
Goulding: William Purdham.
Gouldsmith: George Waller.
Gover: Arthur Sutton.
Gover: John Richard.
Graves: Walter.
Green: Alexander Ernest.

LONDON AND NEIGHBOURHOOD—*continued.*

Fellows:—

Green: Edmund Horace.
Green: Frederick Algernon.
Green: James.
Gregory: Alfred.
Grellier: Harley Mair.
Griffin: Alfred.
Griffin: Harold.
Griffiths: Edward.
Griggs: Robert.
Grose: Vincent John.
Grover: Arthur.
Gruning: Edward Augustus.

Hale: Raymond Henry.
Hall: Walter.
Hall-Jones: Frederick.
Hallett: William Brown.
Hamilton: John.
Hampton: Geo. Frederick Wm.
Hansell: Reginald Goddard.
Hardcastle: Fredk. Henry Appleton
Harding: Edward Ernest.
Harrington: George Frederick.
Harrison: George John Robertson.
Harrison: Richard Creese.
Harston: Arthur.
Hart: William Frederick.
Haskins: William Albion.
Hayward: Thomas William Alfred.
Healing: Oswald Judd.
Head: John George.
Heath: Henry.
Heath: Henry Cubitt.
Hedley: Robert Wilkin.
Heelis: William.
Hendriks: Henry.
Heward: Ernest James.
Hibbert: Joseph Victor.
Hickson: Stephen Westby.
Higgins: George.
Hilton: John.
Hine: George Ernest.
Hine: George Thomas.
Hobson: Frederick William.
Hodson: George.
Hodson: William.
Holland: Thomas James, Jun.
Hollingsworth: Arthur Augustus.
Holman: George Edward.
Holmes: Montagu.
Hood: Herbert Charles.
Hood: Walter Richard.
Hope: Arthur Ernest.
Hope: William Elliott.
Hopkins: Alfred James.
Horne: Edmund.
Horne: William Elgar.
Member of Council.
Horsey: Frederick John Terry.
Houghton: Frederick.
Houghton: John Pounds.
Houghton: Thomas Marcus.
Houghton: William.
Hovenden: Henry Edward.
Howes: Arthur Burnaby.
Hudson: Albert William.
Hudson: Arthur Byrne.
Hudson: Edward William.

LONDON AND NEIGHBOURHOOD—*continued.*

Fellows:—

Hugman : Charles Eady.
Hunt : Frederick Cope.
Hunt : Frederick William.
Hunt : Henry Arthur.
Hunt : Josiah.
Hunter : Cecil.
Hussey : Samuel Murray.

I'Anson : Edward Blakeway, *Member of Council.*
Inman : Marshall Nisbet.
Inman : William Nutter.

Jarmain : William.
Jarman : Frank Wilmot.
Jeffree : Sydney.
Jenkinson : John.
Jenkinson : William Eric Leigh.
Jenkinson : William Wilberforce.
Jennings : Fitz-Laurence Percival Dudley.
Jerome : Thomas Stroud.
Johnson : Bernard Marr.
Johnson : Henry.
Johnston : Reginald.
Jonas : Henry.
Jones : Charles.
Jones : Charles Frederick.
Jones : Ernest Joel.
Jones : Henry Arthur.
Jones : Thomas.
Joseph : Delissa.

Kedgley : Charles.
Kennedy : James.
Kersey : Alexander Henry.
King : Alfred.
Kirk : John Wright.
Knight : Edgar Walsh.
Knight : George Edward.

Lake : Cuthbert Joseph.
Lambert : Godfrey Charles.
Lancaster : John Roy.
Lang : Charles Augustus.
Latham : Albert Tummons.
Lawrance : Walter.
Lawrence : William Robert.
Leaning : Henry John.
Leaning : John.
Leaning : William Arthur.
Lee : Ernest Edward Arthur.
Lee : Frederick.
Lee : John Wilfrid.
Lee : Philip Stirling.
Lee : Sydney Williams.
Lightfoot : Francis Lowry.
Littlewood : Lionel.
Lloyd : George Hamilton.
Lofts : Henry Fairlam.
Low : Robert John.
Lowe : Charles Hariowe
Luker : Dyneley.

LONDON AND NEIGHBOURHOOD—*continued.*

Fellows:—

McCarthy : Henry Robert.
Maddox : Harry Edward.
Mallett : William Robert.
Mann : Charles John.
Mann : James Bagshaw.
Mann : Robert Bagshaw.
Marks : Hyman.
Marr : James.
Marriott : George Wharton.
Martin: Alfred John.
Martin : George Dennis.
Martin : Howard, *Member of Council.*
Martin : Samuel.
Martin : Thomas.
Masterman : George Hughes.
Mathews : Joseph Douglass.
Matthews : Douglas Samuel.
Mellenfield : James Henry.
Mellor : Thomas Henry.
Melrose : Frank.
Mercer . Charles Edward.
Merrick : Frederick Walter.
Messenger : Henry.
Middleton : Reginald Empson.
Migotti : Alphonzo.
Millar : Charles William.
Millard : Edward.
Mixer : Edward.
Monckton : Henry Percival.
Monier-Williams : Stanley Faithfull.
Montagu : Henry Havelock.
Moody : Thomas.
Moore : Alfred.
Moore : Harold Edward.
Morris : Harold George.
Morris : Richard Percival.
Moss : Thomas Walter.
Mould : Graham Harley.
Muller : John Joseph.
Mundy : Thomas Edward.
Murray : William.

Neale : George James.
New : Edward Vorley.
Newman : Arthur Harrison.
Newman : Charles Henry.
Newman : Samuel Frank.
Newmarch : Henry Charles.
Newson : Harry Carss.
Newton : Edwin Bennett Brierley.
Nicholson : William Abernethy.
Nisbet : John.
Norman : James Maurice.
North : George.
Northcroft : Henry.
Norton : Thomas Herbert.
Notley : Richard Albert.
Notley : Robert Pledge.
Nottage : William Griggs.

Oakley : Christopher Percival.
Oakley : John Hubert.
Ogden : Michael Guy.
Orgill : John Berwick.

LONDON AND NEIGHBOURHOOD—*continued.*

Fellows:—

Page: Robert.
Palmer: Frederick Charles Richard.
Parker: Charles Alfred.
Parker: Stanley.
Parnacott: Alfred.
Parr: Samuel.
Parr: Samuel George.
Parry: Richard.
Partridge: Edward John.
Patch: Shirley Hutchins.
Paull: Alan.
Payne: Alexander.
Pearce: Fred W.
Pearson: Harry John
Pearson: T. Howard.
Peck: William Roland.
Penfold: John Wornham, *Vice-President.*
Perriam: Alfred Joseph.
Pilditch: Philip Edward.
Pinder: Richmond.
Pineger: James Reginald,
Pinks: Edwin Charles.
Poston: Henry.
Potter: Herbert George.
Powell: Frederick Atkinson
Preston: Samuel David.
Price: Richard Arnold.
Pridmore: Albert Edward.
Pridmore: Arthur Stirling.
Protheroe: Alfred Ernest.
Purchase: Edward Keynes.
Purvis: Charles James.
Pyle: Benjamin Thomas Rice.

Raffety: Harold Vezey.
Raffety: Herbert William.
Rawlins: Henry Adair.
Rawlins: William.
Read: George Huntly.
Rees: William Andrew.
Reid: Arthur Fletcher.
Rex: Francis Herbert.
Richards: Alfred.
Richards: William.
Richardson: Arthur Bayliffe.
Richardson: Oliver Archer.
Rickman: Thomas Miller, *Past-President.*
Riddle: Frederick Henry Brimble.
Ridley: Percy Edward.
Roberts: Charles Quincey.
Roberts: Henry Croydon.
Robins: Philip Seymour.
Robinson: Charles Edward.
Robinson: Henry.
Robinson: Henry Herbert.
Robinson: Theodore Richard.
Robson: Edward Robert.
Roddick: Andrew.
Rogers: Horace Mordaunt.
Rogers: William Bennett.
Rolleston: Sir John Fowke Lancelot, M.P., *Past-President.*
Roods: Alfred.
Rooke: Alfred Bradley.
Ruault: John Gustave Peter.
Rüntz: Ernest Augustus.
Russell: Murray Lawrence.

LONDON AND NEIGHBOURHOOD—*continued.*

Fellows:—

Rushworth: Edmund Walter.
Rutley: Charles.
Rutley: Frank.
Ryan: William Patrick.
Ryde: Arthur Lyon.

Sadler: George William, Jun.
St. Quintin: Perry.
St. Quintin: Richard Samuel.
Sanday: George Henry.
Saunders: Charles Herbert.
Saunders: Edward.
Saunders: Martin Luther.
Saunders: Rutland.
Saunders: Samuel Brown.
Savill: Alfred.
Savill: Alfred, Jun.
Savill: Edwin.
Selby: Charles Frederic.
Sexton: George Alexander.
Shackle: Edward Neild.
Sherwin: Joseph Henry.
Shilcock: James
Shone: Isaac.
Shoppee: Charles Herbert.
Simms: Walter.
Single: Arthur.
Skipper: Henry Herbert.
Skitt: Arthur
Skrimshire: Samuel.
Skues: Charles Ayre Mackenzie.
Slade: James Benjamin.
Slater: Charles Frederick.
Smith: Charles Gordon.
Smith: Edward.
Smith: Frank Adams.
Smith: Frederick Robert.
Smith: Henry Herbert.
Smith: John Moore.
Smith: Percy Pyne Caldecott.
Smith: Sydney Arthur.
Smith: Sidney Robert James
Snelling: Henry.
Squarey: Elias Pitts, *Past-President.*
Squarey: Newell William Pitts
Squire: Richard.
Standen: Arthur C.
Stanford: George
Stanger: Samuel Arthur.
Stenning: Alexander Rose, *Member of Council.*
Stenning: Oswald Francis.
Stephenson: Charles William.
Stevens: Charles Vivian.
Stevens: John William.
Stevens: William Charles.
Stevenson: Edmund Herbert.
Steward: Herbert Thomas, *President.*
Stock: Henry.
Stoner: Alfred.
Strouts: Lewis Herbert.
Strudwick: Hayward James.
Strutt: The Hon. Edward Gerald, *Member of Council.*
Sturt: Charles Edwin.
Sutton: Frederick Stanley.
Swain: Ernest.
Swain: Frank.

LONDON AND NEIGHBOURHOOD—*continued.*

Fellows:—

Tabberer: Benjamin.
Tanner: Sir Henry.
Tapp: Arthur.
Tasker: Henry Hugh
Taylor: Arthur William.
Taylor: Edward Fergusson.
Taylor: John Herbert.
Taylor: Richard Frederick.
Tee: Samuel Clifford.
Tewson: Edward.
Theobald: Henry.
Theobald: Henry Wells Dewhurst.
Theobald: John Medows.
Thomas: John Henry.
Thompson: Arthur Edward.
Thompson: Robert James.
Thynne: Edward Lewis.
Thynne: Guy Harry.
Tidman: Edward.
Tootell: Richard William.
Trafford Frederick Charles.
Treadwell: Henry John.
Trehearne: Alfred Frederick Aldridge.
Trent: William Edward.
Trist: John William.
Trollope: Henry Charles.
Trumper: John Alfred.
Tubbs: Walter Burnell.
Tuckett: Percival Fox.
Turner: Alexander Henry.
Tutt: Edwin Thomas.
Tyler: James William.

Upsdale: Andrew Reed.

Vaizey: John George.
Vernon: Arthur.
Past-President.
Vickers: Arthur Cranstoun.
Vigers: Leslie Robert.
Member of Council.
Vigers: Martin.
Vigers: Robert.
Past-President.

Wadling: Henry John.
Wadmore: Beauchamp.
Wagstaffe: Thomas Rogers.
Walcott: Lyons Roden Sympson.
Walker: Samuel.
Wallace: George.
Walmisley: Arthur Thomas.
Ward: George
Warmington: Herbert Andrew Cromartie.
Warner: William Henry.
Watney: Daniel.
Past-President.
Watney: Dendy.
Watney: Walter Daniel.
Watts: Charles.
Weatherall: Henry.
Weaver: William.
Webster: Hugh Caltbrop.
Wells: William Henry.
West: Charles Henry Edward.
West: Herbert James.
Wheatley: Stephen Gladstane.
Wheeler: John Henry West.
White: William Henry.
Whiteley: Charles Percy.

LONDON AND NEIGHBOURHOOD—*continued.*

Fellows:—

Whittaker: John Dronsfield.
Wigram: Reginald Spencer.
Wilkinson: George Ayscough.
Wilkinson: George Herbert.
Williams: Henry Cuthbert.
Williams: Leonard James.
Williams: William Herbert.
Willis: Edward.
Wilson: Frederick Robert.
Wilson: Sir Jacob.
Withall: Latham Augustus.
Wonnacott: Ernest Wm. Malpas.
Wood: Charles Bruce.
Wood: John Daniel.
Woodbridge: Stephen, Jun.
Woodrow: Thomas John.
Woods: Arthur George.
Woods: Thomas.
Woodthorpe: Edmund.
Woodward: William.
Wreathall: Robert T.
Wright: George Thomas Green.
Wrightson: Arthur Frederick.

York: Henry.
Young: Andrews.
Young: Douglas.
Young: Morgan Henry.
Young: Thomas.

Professional Associates:—

Adams: Gilbert Matthews.
Adams: Herbert.
Addiscott: Henry Hugh.
Allen: Fred Tregarthen.
Allen: Leslie Herbert.
Allpress: Horace Edward.
Allsop: Benjamin Geo. Kidston.
Anderson: Thomas John.
Andrews: Herbert George.
Andrews: Stephen Hampton.
Armytage: Francis Reginald.
Arno: Samuel
Austin: Frank Holman.

Balding: Albert.
Ball: James Benjamin.
Bamford: Walter Herbert.
Banks: Edward John Stanley.
Barclay: Robert Herman.
Bare: Arnold Edwin.
Barker: Herbert Graham.
Bateman: Frank Graham.
Batstone: Walter Waterfield.
Baylis: Albert Edward.
Beaven: Howard Clifford.
Bedford: Charles Edgar.
Bedwell: Ernest Charles.
Bentley: Harold Edwin.
Berrie: Vero Laverton.
Berry: Charles Windsor.
Betenson: Frederic Roger.
Bettger: Harold Alfred.
Bettridge: John Charles Lebon.
Bickford: Joseph Grant.
Blackshaw: Charles.
Blake: Alfred Norman.
Bliss: Francis George.
Blount: Edward.
Blyth: George Alfred.
Boden: Maurice.
Booth: Ernest Witton.

LONDON AND NEIGHBOURHOOD—*continued.*

Professional Associates:—

Bisher: Victor Evans.
Boulton: Charles Valentine.
Bousfield: Edwin Vaughan Davenport.
Boyton: Bertram Alfred.
Brevetor: Thomas.
Bridgewater: Clement Joseph Bentley.
Briggs: John.
Brimacombe: Charles Seymour.
Broad: Sydney Lowther.
Broome: Douglas Frank.
Brown: Lesly John.
Brown: Wm. Lobin Trant.
Buckland: William Thomas.
Bulbeck: George.
Bull: Thomas Henry.
Burge: Arthur John.
Burgess: Henry Herbert Philip.
Burr: Edmund John.
Buss: Fleetwood George William.

Cargill: Campbell Featherston.
Cassin: Charles Langa.
Cathcart: Archibald Hamilton, The Hon.
Caton: Thomas Linfield.
Chadwick: Spencer.
Chalcraft: Henry Terrell.
Chandler: John.
Chapman: Vaughan Godfrey St. John.
Chattell: Arthur Paul.
Chesterton: Sidney James.
Chilwell: Charles Vyvyan.
Church: Geoffrey Redmore.
Clark: Hudson Owen.
Clarke: Charles Wentworth.
Clarkson: William.
Clayden: Walter.
Coates: Laurence Calvert.
Cobb: Henry Alfred William.
Cocke: Edmund Sidney Dean.
Coker: Harry Reginald Ellis.
Cole: George Harry.
Cole: Herbert Covington.
Collier: Arthur Charles.
Constable: John.
Cooke: Frederick Roper.
Cooke: Lionel.
Cooper: George Augustus.
Cooper: Harry Thomas.
Cope: William George.
Corfield: Thomas.
Cramphorn: Charles Hubert.
Cregeen: Hugh Stowell, Jun.
Cresswell: John Theodore Ross.
Crook: Hollis Augustus.
Crosier: Charles.
Crump: Harold.
Cudlipp: William.
Cullen: Felix Victor.
Culver: Herbert George.
Cumberbatch: Carlton Parry.
Cundy: Henry I.
Cushen: Charles Osmon.

Dadd: Charles John Thomas.
Daffarn: Thomas Alfred.
Dafforn: George Bertie.
Daniel: Henry Wilkinson
Davidge: William Robert.

LONDON AND NEIGHBOURHOOD—*continued.*

Professional Associates:—

Davies: John William Satterley Humphreys.
Davies: Leonard Owen.
Dawkins: Albert James.
Dawson: Henry Aufrere.
Dawson: Walter Henry.
Deacon: Stanley Marcus.
Dinwiddy: Conrad Hugh.
Drake: Frank Arthur.
Drew: Allen.
Drew: Walter Hubert.
Drower: Edmund Gilbert.
Duut: John Harlow.

Easton: Walter John.
Elder: Ernest.
Evans: Ernest Sydney
Evans: Percival Baker.
Everett: Arthur Sherman.

Fagg: Edwin William.
Fairchild: Edward James.
Few: Harry Garrard.
Field: Charles Roland.
Fisher: Robert.
Fitness: John Francis.
Flatt: John Alexander
Fleetwood: Geo. Spalding.
Fletcher: George Rivers.
Fleuret: Alfred Harman.
Ford: C. Graham.
Foster: Edward Chas.
Foster: Henry Helm.
Foster: Walter.
Fowler: Alfred Charles Stanley.
Fowler: Cyril James.
Freeman: George.
French: Cecil George.
Funnell: Horace Frederick.
Furber: Henry Aubrey.

Gairdner: Kenneth Greame.
Galsworthy: Vincent Somers.
Garrard: Arthur Norman.
Garrett: Arthur Berry.
Genders: Percy Robert.
Gilbert: John Sainsbury.
Gilbert: Samuel Howell.
Gillies: John Jeffrey.
Gimson: Allen.
Glasier: Mortimer Sackville.
Gleed: Herbert Alexander.
Gleed: Percival Francis.
Gloag: Tom Keeping.
Goadby: Joseph Stubbins.
Goodman: Alfred.
Goodwin: Henry Ernest.
Gore: William Joll.
Grant: Joseph.
Gray: Horace Norman.
Green: James Henry Townsend.
Greenop: Edward.
Greenwood: Ernest.
Griffiths: Owen.
Groves: Arnold Tudor.

Hagger: George John.
Hall: Montague Preston.
Hamilton: John Paynter.
Harding: Frederick Allcroft.
Harper: Edgar Josiah.
Harris: Douglas.

LONDON AND NEIGHBOURHOOD—*continued.*

Professional Associates:—

Hartley : Tom Percy.
Hassett : Reginald Charles.
Hayward : Arthur Baldwin.
Head : William Alfred.
Hebden : Francis Radcliffe.
Hebden : George Radcliffe
Heckford : Harley.
Hedger : Arthur Constantine.
Hellicar : George Thomas.
Hennell : Frank Gordon.
Henniker : Frederick Sibert.
Henry : Edward Hugh.
Hicks : Stanley.
Hicks : William Rooke.
Hider : Sydney William.
Hinchliffe : George Stanley Whitmore.
Hinks : Henry.
Hinton : Herbert Arthur.
Hoare : Arthur J.
Holmes : John Edward.
Holmes : Montagu Price.
Home : Philip Woollatt.
Hope : Arthur Ernest.
Horder : Gerald Morley.
How : Herbert.
Howell : Ernest John.
Howgrave-Graham : Alan Herbert.
Howkins : Francis.
Howland : Arthur Frank.
Howland : George.

Jarvis : Ernest Cory.
Jessett : Charles.
Jessett : Charles Edward Vernon.
Johnson : Frederick John.
Jonas : Harold Driver.
Jonas : Robert Collier.
Jones : Arthur Bayly.
Jones : Percy Everley.
Jordan : George Henry.
Jull : William Vincent.

Keele : John Daniel.
Keep : William Henry.
Kelleway : Herbert Davies.
Kelly : Arthur Ralph.
Kemsley : Norman Bolton.
Kennett : Charles Arthur.
Kibblewhite : Henry James Treleaven.
King : Frederick Augustus.
Knibb : Frederick Charles.
Knight : Frederick William.
Knowles : George Potter.
Knox : Leonard Needham.

Lake : Ralph Julian.
Lambert : Arthur John.
Lamprill : William Thomas.
Lander : Rowland Stanley.
Lanham : Lawrence.
Lang : Augustus Bernard Dashwood.
Lansdown : George Arthur.
Larkin : Richard Webster.
Laurence : Walter Bernard.
Lawley : Frederick William.
Leake : Robert.
Leaning : Aubrey Rupert Sidney.
Lee : Ernest Edward Arthur.
Leigh : Vincent Stanley.

LONDON AND NEIGHBOURHOOD—*continued.*

Professional Associates:—

Lemmoin-Cannon : Henry.
Leslie : Harry George.
Lewis : Arthur Llewelyn.
Lickis : Leonard.
Lightfoot : John George.
Little : Henry.
Living : Charles, Jun.
Living : Robert.
Lomax : Ernest George.
Lovegrove : Charles Gresham.
Loveless : Arthur William Henry.
Lowe : Charles Robert.
Lucas : Joseph.
Luck : George Edward.
Luffingham : William John.
Lumley : Edward Adrian.
Lush : William Vawdrey.
Lynch : James Henry.
Lyon : Michael Lewis.

Macer : Alfred Thomas.
Madge : Wilfrid.
Maggs : Leonard.
Marcus : William Mortimer.
Martin : Alexander Wm.
Mason : Charles William Hayley.
Mason : Herbert Walter.
Matthews : Douglas Samuel.
Mayhew : Robert Henry Jewers.
Meredith : Percy William.
Merrett : James.
Merritt : William Francis.
Miller : Frederick William.
Milne : William Edward Streatfeild.
Milnes : Robert.
Mitchell : Harold Hastings.
Moat : Ernest William.
Molyneux : Frank Eustace.
Molyneux : Herbert Ernest.
Moore : Arthur William.
Moore : Ernest Llewellyn.
Moore : Richard Charles.
Morle : Denzil Adair Bartlett.
Morrison : Daniel.
Moss : Charles Percy.
Mullett : Henry Thomas.
Mundell : Joseph Edward.

Newborn : Charles Reginald.
Newman : Bernard.
Newman : Henry Arthur.
Newman : Walter Phillip.
Newnham : Frank George.
Newton : James William.
Nicholson : Ebenezer.
Nicholson : Guy Murray.
Notley : Leslie Richard.
Nye : Haydn Percival.

Palmer : Arthur.
Parker : Frederick William.
Parkhouse : Samuel.
Parkinson : Herbert.
Parnacott : Arthur Charles.
Parnwell : Sydney Arthur.
Parrott : Hugh Francis Vivian.
Parry : Albert Edward.
Parry : Herbert Mostyn.
Paton : David Llewellyn.
Paul : John William.

LONDON AND NEIGHBOURHOOD—*continued.*

Professional Associates:—

Pavitt : Harold William.
Pearce : Charles Frederick.
Pearce : Francis Arthur.
Pearce : Frederick William.
Pearce : Stephen Harvey.
Pease : Charles Edward.
Peebles : Philip.
Pepler : George Lionel.
Perks : Sydney.
Pewtress : Herbert Wilmshurst.
Physick : Walter Frederick.
Pilditch : William Thomas.
Pineger : James Reginald.
Pinfold : Francis Arthur.
Pinsent : Francis Wingfield H.
Pitts : Frank Ernest.
Pollock-Hodsoll : Harold Edward.
Poole : Herbert Henry.
Porter : Sydney Lawrance.
Pottier : George Louis.
Potter : Shirley Herbert.
Pratt : Frank Percy.
Price : Capel Hereward.

Ransom : Thomas Reginald.
Read : Francis Charles Jennings.
Read : Walter Herbert.
Reed : Richard George Gordon.
Rees : William Harold.
Richardson : Ernest Edward.
Richardson : Henry.
Ringland : William Ewart.
Rippengal : Arthur Henry.
Robbins : Walter Francis.
Robertson : Henry Charles.
Robinson : Ralph Etson.
Rogers : Frederic James.
Rogers : Thomas George.
Rosevear : John Ashburnham.
Ross : David James.
Ruddle : Frank J.
Ruddle : George William.
Rutley : Arthur Dennett

Sabin : Joseph Henry,
Professional Associate of Council.
Sainsbury : William Charles.
Salmon : Joseph Harold.
Sands : Hubert Covell.
Saunders : Edgar Walter.
Sanday : William Henry.
Satchell : Herbert Arnold.
Scoble : Herbert Thomas.
Scott : John.
Searle : Sydney.
Seller : Frank Russell.
Seddon : George Farquharson.
Selby : Frank.
Sexby : John James.
Shearburn : Harry.
Sherry : Nathaniel.
Skewis : Edwin.
Shipwright : William George.
Skingle : Alfred.
Skingle : Alfred Charles.
Sladdin : Frederick Robert Edwin.
Slade : Isaac.
Smalley : William.
Smith : Arthur Kitson.
Smith : Charles Gordon.

LONDON AND NEIGHBOURHOOD—*continued.*

Professional Associates:—

Smith : Charles Philip.
Smith : George Henry.
Smith : Quentin Cullen.
Smith : Sydney Arthur.
Spalding : Frank Ewart.
Spencer : Francis Augustus.
Spyer : George.
Stacey : Frederick Charles Webster.
Stacey : William.
Stainton : Francis Charles.
Stevenson : Frederick J.
Steward : Clifford Thomas.
Stewart : Harry S.
Stimson : Herbert Percy.
Stokes : Hugh Charles.
Stower : Joseph.
Straker : Howard.
Stubbing : Richard Webb.
Sturgess : John Moore.
Sturley : Arthur Dyson.
Summerfield : Joseph Charles.
Surrey : Christopher William.
Sutton : Frederick Stanley.
Swan : Harrold.
Symes : William Charles.
Symmons : Percy James.

Tanner : Rudolph.
Taylor : George.
Taylor : John James.
Terry : Arthur Elliott.
Terry : Ernest Fairchild.
Terry : Frank Treacher.
Thomas : George.
Thompson : Alfred.
Thompson : Harold Stuart.
Thompson : Joseph Atherden.
Thompson : Roland O'Brien.
Thornton : Arthur Bruce.
Thurgood : Ernest Charles.
Thurgood : Leonard Fielder.
Tidey : Herbert Gordon.
Tighe : Arthur.
Titterton : Sydney George P.
Tomlin : Francis Ferrier.
Townsend : George James.
Townly : Ronald Starkey.
Turner : Jabez Tennyson.
Turner : Vincent.
Tyler : William.

Underwood : Edward.

Veale : Louis Charles,
Veit : Leonard James.
Verity : Ernest George.
Vigers : Astley Allan.

Wain : George Sparrow.
Waldram : Percy John.
Walker : Leon Victor.
Walker : William Selves.
Walsh : Frederick Leopold Morfee.
Walton : Edgar Thomas.
Wason : Eugene Monier.
Watson : George.
Watson : William James.
Watts : Arthur Ronald.
Watts : Ernest William.
Watts : Frederick Spring.
Weekes : Cyril Swaffer.

LONDON AND NEIGHBOURHOOD—*continued.*

Professional Associates :—
Wetenhall : Edward Box.
Wheeler : Francis West.
White : Benjamin William.
Whitehead : Ernest Mortimer.
Whiteley : Cyprian Charles Oswald.
Whittington-Cooper : Alfred.
Wilde : Sidney Algernon.
Wilks : Clement.
Williams : Harold.
Williams : Percy Lloyd Armstrong.
Williams : Richard Ernest Havard.
Willoughby : Charles Albert.
Willoughby : Charles William.
Wilson : Everard John.
Wilson : John Hayes.
Wonnacott : Howard John.
Wontner-Smith : Percy.
Wood : John Edward.
Wood : John Guy.
Woolnough : Tom.
Worthington : James Scott.
Wright : Thomas Henry.

Yewdall : Francis Edward.
Young : C. Alex.
Young : James Dawbarn.
Young : Kenneth James.

Associates:—
Adkins : William Ryland Dent.
Alverstone : The Right Hon. Lord, G.C.M.G., Lord Chief Justice of England,
Associate of Council.

Bankes : John Eldon, K.C.
Barnes : George Frederick.
Barry : Charles Edward.
Barry : Sir John Wolfe, K.C.B.,
Associate of Council.
Beale : James Samuel.
Bellewes : George Oliver.
Bund : John W. Willis.

Castle : Edward James, K.C.
Clarke : Sir Edward, K.C.
Clarke : Sir Ernest.
Clode : Walter.
Clutton : Hubert Spencer.
Colam : Robert Frederick.
Courthope-Munroe : Harry.
Coward : John Charles Lewis, K.C.
Cripps : Charles Alfred, K.C., M.P.

Danckwerts : William Otto Adolph Julius, K.C.

Emden : T. Walter L.

Freeman : George Mallows, K.C.
Freshfield : Edwin.

Glen : Reginald Cunningham.
Grantham : Richard Fuge.

LONDON AND NEIGHBOURHOOD—*continued.*

Associates :—
Hamilton : Henry Best Hans.
Hudson : Alfred Arthur.

Leworthy : John Henry.
Littler : Sir Ralph Daniel Makinson, K.C.

Marshall : Frederick.
Mence : Phillip Allan.
Milles : Charles William.
Moulton : John Fletcher, K.C., M.P.
Munsey : Thomas Hensman.

Pain : Arthur Cadlick.
Pinches : Edward Edwin.

Redman : Joseph Haworth.
Rickards : Arthur George, K.C.
Rigg : Herbert Addington.
Russell : Charles Alfred, K.C.

Somerville : William.
Statham : William Arnold.
Stephens : Pembroke S., K.C.
Stevens : William Richard.
Stutfield : Alfred Robert Ogilvie.
Sutton : Henry.

Vaughan : Edward Joseph.
Veasey : Thomas Frederick

Wheeler : Thomas Whittenbury, K.C.
Will : John Shiress, K.C.
Winckworth : Lewis.

MONMOUTHSHIRE.

ABERGAVENNY.

Fellow :
Graham : Arthur Gore.

LLANOVER.

Fellow :—
Addie : John Heathcote.

MONMOUTH.

Fellow:—
Powell : Frederick Atkinson.

NEWPORT.

Fellows:—
Graham : William.
Hitchcox : William.
Rees : William George.
Tanner : William.

Professional Associates:—
Griggs : Henry Jenner.
Innes : Gilbert Plantagenet Mitchell.

MONMOUTHSHIRE—*continued.*

PONTYPOOL.

Fellow:—
Llewellin: David Morgan.

NORFOLK.

ATTLEBOROUGH.

Fellows:—
Bacon: Frank Mace.
Bacon: Horace.
Salter: William Herbert.

CAISTOR.

Professional Associate:—
Morse: Dudley Walter.

CASTON.

Professional Associate:—
Scorer: Alfred George.

CROMER.

Professional Associate:—
Whatley: Ernest James.

DISS.

Fellow:—
Gaze: Thomas William.

DOWNHAM MARKET.

Fellows:—
Hawkins: Charles.
Hawkins: Lancelot Goulder.

Professional Associate:—
Hawkins: Edward Robinson.

EAST DEREHAM.

Fellow:—
Ireland: Edwin Benjamin.

EAST RAYNHAM.

Fellow:—
Gayford: Henry John.

GRIMSTON.

Professional Associate:—
Freuer: William Samuel.

HOLKHAM.

Professional Associate:—
Hawes: Frederick Kirk.

HOLT.

Professional Associate:—
Shettle: Edward Gurney.

NORFOLK—*continued.*

HORSTEAD.

Fellow:—
Falcon: Michael.

KING'S LYNN.

Fellows:—
Easter: William.
Wilkin: Horace Martin.
Wright: William Edward.

NORWICH.

Fellows:—
Beck: Edward William.
Hornor: Charles Jared.
Hornor: Francis.
Mills: Samuel Mealing.
Morgan: Benjamin Brauford.
Rose: Thomas.
Scott: Augustus Frederic.

Professional Associates:—
Arnold: Harry Hagon.
Bodger: Percy Morris.
Goodchild: Ralph Harry.
Spelman: William Wilton Rix.
Tillyard: Sidney Joseph.
Waters: Frank.

SWAFFHAM.

Associate:—
Hamond: Thomas Astley Horace.

THETFORD.

Professional Associate:—
Menzies: Robert.

WEST RUDHAM.

Fellow:—
Freuer: William.

Professional Associate:—
Chartres: Frederick William Charles.

NORTHAMPTONSHIRE.

COTTESBROOKE.

Fellow:—
Campbell: Hugh Bruce

HORTON.

Fellow:—
Cave: Thomas Newman.

KETTERING.

Fellows:—
Bolam: Charles Godfrey.
Thring: Douglas Theodore.

Professional Associate:—
Dudley: Roland.

NORTHAMPTONSHIRE—*continued.*

NORTHAMPTON.

Fellows:—
Gotto: Frederick Edward.
Merry: Thomas.
Scriven: Richard George.

Professional Associate:—
Brown: John.

OVERSTONE.

Fellow:—
Dickson: Thomas Arthur.

PETERBOROUGH.

Fellows:—
Laurance: John.
Woodford: Lionel Burnet.

Professional Associate:—
Shone: Leighton Edward.

THRAPSTON.

Fellows:—
Bletsoe: Henry Hopkinson.
Edmonds: John.

TOWCESTER.

Fellow:—
Aris: John Whitton.

Professional Associate:—
Whitton: Harold William.

WANSFORD.

Professional Associate:—
Jolly: Pearson Alexander.

NORTHUMBERLAND.

ALNWICK.

Fellow:—
Walker: Francis Elliott.

Professional Associate:—
Hindmarsh: Michael Anselm.

BELFORD.

Fellow:—
Wilson: Sir Jacob.

BOTHAL.

Fellows:—
Sample: Thomas.
Sample: William Collings.

GOSFORTH.

Fellow:—
Aynsley: Robert John.

Professional Associate:—
Town: Henry Annandale.

HALTWHISTLE.

Fellow:—
Clark: John McClare.

NORTHUMBERLAND—*continued.*

HEXHAM.

Fellow:—
Clark: John McClare

Professional Associate:—
Ker: Arthur Preston.

HUMSHAUGH-ON-TYNE.

Professional Associate:—
Wood: Herbert Calvert.

MATFEN.

Fellow:—
Sample: Charles Herbert.

MONKSEATON.

Professional Associate:—
Smith: Stanley Addison.

NEWCASTLE-UPON-TYNE.

Fellows:—
Armstrong: Thomas John.
Carr: Cuthbert Ellison.
Taylor: Harry William.
Taylor: John Walton.

Professional Associates:—
Allen: John Parnell.
Taylor: Russell Leigh.
White: William, Jun.

WOOLSINGTON.

Professional Associate:—
Watson: Claude Henry.

WYLAM.

Fellow:—
James: Christian Hugh.

NOTTINGHAMSHIRE.

BABWORTH.

Fellow:—
Parkin: William.

BINGHAM.

Professional Associate:—
Pain: William Henry.

CLIFTON.

Fellow —
Haynes: Henry.

EPPERSTONE.

Fellows:—
Huskinson: Thomas William.
Huskinson: William Lambe.

Professional Associate:—
Huskinson: Ernest Amphlett.

NOTTINGHAMSHIRE—*continued.*

MANSFIELD.

Fellows:—
Crampton: Arthur Wesley.
Turner: Frederick John.
Vallance: Robert Frank.

Professional Associates:—
Butterworth: Josiah.
Clements: Cyril John.

NEWARK.

Fellow:—
Bailey: William Smith.

Professional Associate:—
Wigram: Henry Joseph.

NOTTINGHAM.

Fellows:—
Barnes: John William James.
Booker: Frank William.
Calvert: Arthur Richard.
Evans: Robert.
Hine: George Thomas.
Walker: Herbert.
Walker: Joseph.
Wright: Charles William.

Professional Associates:—
Beddall: Herbert Bowman.
Child: Edmund Herbert.
Payne: William Percy.
Sackett: Sydney Rupert.

NUTTALL.

Fellow:—
Taylor: Samuel.

Professional Associate:—
Taylor: William Henry.

OLLERTON.

Fellows:—
Bell: Joseph Askew.
Wordsworth: Robert Walter.

Professional Associate:—
Brooks: William Nathaniel.

OSBERTON.

Fellow:—
Lister-Kaye: Charles Wilkinson.

RADCLIFFE-ON-TRENT.

Fellow:—
Morris: Charles.

RETFORD.

Fellows:—
Brackett: William Newbegin.
Walker: Joshua.

SOUTH COLLINGHAM.

Fellows:—
Wigram: John.
Woolley: Reginald.
Woolley: Thomas Cecil Smith.

NOTTINGHAMSHIRE—*continued.*

WELBECK.

Professional Associate:—
Tate: Joseph George.

WOLLATON.

Professional Associate:—
Allsebrook: Arthur.

WORKSOP.

Fellow:—
Turner: Thomas Warner.

OXFORDSHIRE.

BANBURY.

Fellow:—
Maxwell: Joseph Archibald.

BICESTER.

Fellows:—
Holiday: Frederick Dean.
Holiday: Percy Cave.

Professional Associate:—
Bliss: Theodore Stephen.

BURFORD.

Professional Associate:—
Salt: Harold Crossley.

CHARLBURY.

Professional Associate:—
Riddett: Maurice Charles.

GORING-ON-THAMES.

Professional Associate:—
Dodd: Harold James.

HENLEY-ON-THAMES.

Fellows:—
Simmons: Charles.
Simmons: Charles Franklin.
Simmons: William Anker.

MIDDLETON-STONEY.

Fellow:—
Little: William Davis.

OXFORD.

Fellows:—
Castle: Arthur.
Field: Francis Hayward.
Jones: Francis William.
Lightfoot: Henry Le Blanc.

Professional Associate:—
Rose: Edward Joseph.

SHIRBURN.

Fellow:—
Watson: James Bruce.

OXFORDSHIRE—*continued.*

THAME.

Professional Associate :—
Aubrey : William Beauchamp.

WITNEY.

Fellow :—
Habgood : Henry Charles.

WROXTON.

Fellow :—
Davis : Charles Edward.

RUTLANDSHIRE.

OAKHAM.

Fellows :—
Royce : David Needham.
Royce : John.

SHROPSHIRE.

ACTON REYNOLD.

Professional Associate :—
Astley : Reginald Basil.

ASTON-ON-CLUN.

Fellow :—
Wolley : Thomas John.

BRIDGNORTH.

Fellow :—
Wyley : Henry James.

Professional Associate :—
Wyley : Henry Charles.

BROMFIELD.

Fellow :—
Fenn : Andrew Thomas Cranage.

CHESWARDINE.

Fellow :—
Chichester : Richard Herbert.

CHIRBURY.

Fellows :—
Morris : Edward Henry.
Morris : William Henry.

CONDOVER.

Fellow :—
Carnell : Sydney George.

ELLESMERE.

Fellow :—
Tower : Brownlow Richd. Christopher.

LUDLOW.

Fellows :—
Dodgson : Wilfred Longley.
Fenn : Thomas.

SHROPSHIRE—*continued.*

LYDBURY NORTH.

Fellow :—
Newill : Robert Henry.

MUCH WENLOCK.

Fellow :—
Thursfield : Thomas Howells.

NEWPORT.

Professional Associate :—
Burder : Reginald Edward Campbell.

OSWESTRY.

Professional Associate :—
Ashton : Arthur Ward.

SHREWSBURY.

Fellows :—
Bather : John T.
Burd : Timotheus Henry.
Davis : Alfred Thomas.
Evans : William Ernest.
Hall : William Timothy.
Hickman : Thomas.
Owen : Henry.
Peace : John Chalmers.
Wyley : William John.

Professional Associates :—
Douglas : Bernard Moxon.
Hazledine : John Turner Clough.
Hickman : Arthur Murhall.
Salt : Leonard Eustace.
Salt : Reginald Nowell.

UPPINGTON.

Fellow :—
Ashdown : Augustus Harding.

WHITCHURCH.

Fellow :—
Palamountain : Joseph William.

SOMERSETSHIRE.

BATH.

Fellows :—
Brinkworth : Robert Edwin.
Farwell : Frederick George.
Silcock : Thomas Ball.
Spackman : Charles Chantry.

BRENTKNOLL.

Professional Associate :—
Percival : Walter Gilbey.

SOMERSETSHIRE—*continued.*

CHARD.

Fellow:—
Madge: John.

CHEDDAR.

Fellow:—
Parry: Richard Frederic.

HUTTON.

Fellow:—
Edwards: Arthur Phippen.

NEWTON ST. LOE.

Fellow:—
Welsh: Hugh.

MINEHEAD.

Fellow:—
Andrew: Thomas Hawkes.

MISTERTON.

Fellows:—
Combes: Cyrus.
Parsons: Robert Maurice Peters.

NORTH CURRY.

Fellow:—
Peard: John Grigg.

Professional Associate:—
Coates: P. Brevitt.

QUEEN CAMEL.

Fellow:—
Sowels: William Clowes,

SHEPTON MALLET.

Fellows:—
Heard: Herbert.
Wainwright: Charles Rawlinson.

SOMERTON.

Professional Associate:—
Dale: Edward Sydney Wilson.

STAPLEGROVE.

Fellow:—
Shufflebotham: John Henry.

TAUNTON.

Fellow:—
Trepplin: Ernest C.

SOMERSETSHIRE—*continued.*

WELLS.

Fellows:—
Hippisley: Edwin Maggs.
Hippisley: William John.

WESTON-SUPER-MARE.

Fellows:—
Garner: John Stanley.
Sedgwick: Alfred Sydney E.
Wooler: Walter Hernaman.

WILLITON.

Professional Associate:—
Hosegood: Andrew Webber.

WIVELISCOMBE.

Professional Associate:—
Smith: Frank Hall.

YATTON.

Fellow:—
Birch: Francis Julian Lawrence.

YEOVIL.

Fellow:—
Tory: John Edward.

STAFFORDSHIRE.

AUDLEY.

Professional Associate:—
Bibbey: Thomas.

BURTON-ON-TRENT.

Fellows:—
Harrison: Charles.
Rowland: Joseph Samuel.
Winterton: Wm. Moxon.

DRAYTON.

Professional Associate:—
Humphry: Martin George.

DUDLEY.

Professional Associate:—
Bailey: Percival Henry Ashby

ENDON.

Fellow:—
Heaton: George Herbert.

HANLEY.

Fellow:—
Forshaw: Edward.

KEELE.

Fellow:—
Boothby: Henry Vernon.

LEEK.

Professional Associate:—
Brealey: Reginald Woodhouse.

STAFFORDSHIRE—*continued.*

LICHFIELD.

Fellows:—
Hussey: Robert.
Inge: Charles Henry.
Winterton: Harry John Campion.

Professional Associate:—
Rawstron: Charles Oliver.

NEWCASTLE.

Professional Associates:—
Jones: Arthur Ernest.
Owen: Harry Bertram.
Stone: Frederic.

PENKRIDGE.

Fellow:—
Foden: Edward Antrobus.

RUGELEY.

Professional Associate:—
Hall: Thomas Biddle.

STAFFORD.

Fellow:—
Turnor: Exsuperius Weston.

Professional Associates:—
Evans: Rupert Maurice.
Smithells: Edwin.

STOKE-UPON-TRENT.

Fellows:—
Burton: Amos.
Lynam: Charles.

STONE.

Professional Associate:—
Thorold: James Ernest.

STRAMSHALL.

Fellow:—
Forshaw: Edward.

TAMWORTH.

Fellow:—
Arnold: William.

TETTENHALL.

Fellow:—
Pearse: Octavius Burroughes.

UTTOXETER.

Fellow:—
Hardy: Richard Thomas Ash.

WALSALL.

Professional Associate:—
Charles: Michael Thomas.

STAFFORDSHIRE—*continued.*

WOLVERHAMPTON.

Fellows:—
Duncalfe: Henry George.
Nock: Benjamin Bowen.

Professional Associate:—
Vale: Henry.

SUFFOLK.

BECCLES.

Fellow:—
Pells: Arthur

BURY ST. EDMUND'S.

Fellows:—
Blencowe: George.
Donne: Henry.
Scott: Henry Lacy.

Professional Associates:—
Donne: Cyril Henry.
Williams: Daniel Smith.

CODDENHAM.

Fellow:—
Maxwell: David Benjamin.

EYE.

Fellow:—
Garrard: Norton Burroughs.

Professional Associates:—
Smith: Sidney William.
Whitaker: Hugh.

FELMINGHAM.

Professional Associate:—
Barratt: Leigh.

FRAMLINGHAM.

Professional Associate:—
Cook: Edward Arthur.

GREAT THURLOW.

Fellow:—
Boa: Andrew.

HOLLESLEY BAY.

Associate:—
Malden: Walter James.

HORSECROFT.

Fellow:—
Simpson: Robert Thomas.

IPSWICH.

Professional Associates:—
Bond: Frederick George.
Cheney: Edwin John.
Slater: Arthur James.
Turner: Percy.

LONG MELFORD.

Fellow:—
Scott: Archibald Lacy.

SUFFOLK—*continued.*

LOWESTOFT.

Fellow:—
Pells: Arthur.

SAXMUNDHAM.

Professional Associate:—
May: Philip John.

SOMERLEYTON.

Fellow:—
Rix: George Kerry.

WOODBRIDGE.

Fellow:—
Arnott: John.

SURREY.

ADDLESTONE.

Professional Associate:—
Bell: Albert Henry.

ALBURY.

Professional Associate:—
Sparke: Norman Lush.

ASHTEAD.

Professional Associate:—
Peters: George Farmer James.

Associate:—
Smith: John Edward.

BYFLEET.

Professional Associate:—
Muir: James.

CATERHAM.

Fellow:—
Holl: Mackintosh Meleng.

Professional Associate:—
Scrivener: Charles John.

CHERTSEY.

Professional Associate:—
Waterer: Clarence.

COBHAM.

Professional Associate:—
Pattison: William Henry Munnings.

Associate:—
Seth-Smith: Archibald.

CRANLEIGH.

Professional Associate:—
Stedman: Charles Frederick.

DORKING.

Fellows:—
White: Charles Alexander
White: James Alexander.

SURREY—*continued.*

EGHAM.

Fellows:—
Finn: Herbert Archibald
Gale. Harry.

Professional Associate:—
Paice: William, Jun.

ENGLEFIELD GREEN.

Fellows:—
Menzies: William.
Simmonds: Frederick.

EPSOM.

Fellow:—
Grellier: Harley Mair.

Professional Associate:—
Flight: Alfred.

FARNHAM.

Fellows:—
Eggar: James Alfred.
Nash: Alfred James.

Professional Associates:—
Hewett: Richard.
Williams: William Welsby.

Associate:—
Wing: Thomas Twining.

GODALMING.

Fellows:—
Baverstock: Harold Bridge.
Mellersh: Alfred William.
Shearburn: Harry.

GODSTONE.

Professional Associate:—
Wordsworth: Christopher.

GUILDFORD.

Fellows:—
Baxter: George.
Ellis: Ernest Harold.
Lee: William.
Messenger: William Harry.
Thurgood: Albert Edward.

Professional Associates:—
Hewett: George Thompson.
Williams: Frank Warren.

HORSELL.

Professional Associate:—
Hunt: Harry.

KINGSTON-ON-THAMES.

Fellows:—
Bond: Erasmus.
Horsfield: J. Nixon.
Page: George Frederick.
Phillips: William Edwin

SURREY—*continued.*

Professional Associate :—
Hardwick : Arthur Jessop.

LEATHERHEAD.

Fellow :—
Osenton : Charles.

LIMPSFIELD.

Fellow :—
Bailey : Leonard.

MERSTHAM.

Professional Associate :—
Willoughby : Frank.

MITCHAM.

Fellow :—
Chart : Robert Masters.

MORDEN.

Professional Associate :—
Frost : Alfred Cardain.

NEW MALDEN.

Fellow :—
Palmer : William Edward King.

NUTFIELD.

Fellow :—
Martin : Howard,
Member of Council.

Professional Associate :—
Maw : Percival Trentham.

PURLEY.

Fellow :—
Webb : William.

Professional Associate :—
Densham : John Boon.

REDHILL.

Fellows :—
Stacey : Harrie.
Ward : Henry Payne.

Professional Associates :—
Brent : Thomas.
Mew : Robert Heath.

REIGATE.

Fellows :—
Burchell : Sidney Herbert.
Clutton : Ralph William.
Dawson : Percy John.

Professional Associates :—
Foulkes : Noel Mackintyre.
Morris-Davies : James George.

RICHMOND.

Fellows :—
Chancellor : Albert.
Heasler : Holland Charles.
Houghton : John Pounds.
Partridge : Edward John.

SURREY—*continued.*

Professional Associates :—
Bingham : William Raper.
Binns : Henry William.
Tayler : Vivian Alfred.

Associate :—
Boulger : George Edward Simonds.

RIPLEY.

Fellow :—
Noel : Byron Bruce.

Professional Associate :—
Collyer : Charles Alexander Stewart.

SURBITON.

Fellow :—
Jerome : Thomas Stroud.

Professional Associate —
Berry : Charles Windsor.

SUTTON.

Fellow :—
Aylen : Cecil Hugh.

Professional Associates :—
Russell : Humphrey Gladstone.
Stimson : Edward Frederick.

THAMES DITTON.

Professional Associate :—
Ward : Martin Hammond.

WALLINGTON.

Fellow :—
Jopling : Joseph.

Professional Associate :—
Hay : Percy Gilbert

WARLINGHAM.

Professional Associate :—
Philpot : Clifford Needham.

WEYBRIDGE.

Professional Associates :—
Bruzaud : George Joseph.
Leese : Vernon Francis.

WOKING.

Fellow :—
Reffell : Charles Arthur.

Professional Associate :—
Mann : Frederick Charles Thomas.

SUSSEX.

BRIGHTON.

Fellows .—
Ingram : Walter Fielde.
May : Francis John Charles.
Parsons : Frederick Cecil.
Waters : William Richard.
Welch : Frederick William.
Wilkinson : Thomas.

SUSSEX—*continued.*

Professional Associates:—
Cox: Reginald John.
Croft: George Herbert.
Mellor: James Frederick.
Mitchell: Herbert Arthur.
Norris: Edward James.
Overton: William Henry.

CHICHESTER.

Fellows:—
Hobgen: Francis Neale.
Wyatt: Herbert Guy Buckell.
Wyatt: Oliver Newman.

Professional Associate:—
Williams: Arthur Codrington.

CRAWLEY.

Fellow:—
Gardner: Gilbert.

CROWBOROUGH.

Fellow:—
Parris: Charles John.

EASTBOURNE.

Fellows:—
Buzzard: Alfred Lindsey.
Dennison: John W.
Johnstone: Augustus Frederic.
Killick: Anthony Edward.

Professional Associate:—
Woolnough: John William.

EAST GRINSTEAD.

Fellows:—
Hooper: Edgar Wilfred.
Turner: Charles.
Wood: Leslie Stuart.

Professional Associates:—
Genge: William Pope, Junr.
Osmond-Smith: Francis Henry George.

FINDON.

Professional Associate:—
Margesson: Anthony Robert.

HAILSHAM.

Fellows:—
Burtenshaw: Albert.
Burtenshaw: Albert King.

Professional Associate:—
Burstow: Ralph Henry.

HASTINGS.

Fellows:—
Bowley: John Cross.
Dray: Alfred.

Professional Associates:—
Hardiman: Harry.
Jeffery: Francis Wilson.
Miller: George Frederick.
Parks: Walter.

HAYWARD'S HEATH.

Fellows:—
Bannister: Thomas.
Ogilvie: Robert Mathewson.

Professional Associate:—
Hayllar: Sidney Hayllar

SUSSEX—*continued.*

HORSHAM.

Fellows:—
Chasemore: Philip.
King: Frank Hulme.

Professional Associates:—
Green: Arthur Edward.
Richardson: Harold Thomas.

HOVE.

Fellows:—
Basley: Harold Pullam.
Hudson: Edward William.
Jenner: William.
Pearson: T. Howard.
Welch: Frederick William.
Wilkinson: Thomas.

Professional Associate:—
Udny: Augustus Charles.

LEWES.

Fellows:—
Card: Henry Curtis.
Davey: Henry Thomas.
Dyer: Frederick Burfield.
Ingram: Walter Fielde.
Morris: Herbert.
Powell: Hubert John.
Powell: Reginald Henry.

Professional Associates:—
Card: Henry.
Ingram: James Francis.
Lucas: John Clay.
Newington: Caleb Rickman K.

LITTLEHAMPTON.

Fellow:—
Howard: Harry.

PETWORTH.

Fellows:—
Taylor: Matthew.
Watson: Herbert Edward.

PEVENSEY.

Professional Associate:—
Spence: Richmond.

PULBOROUGH.

Professional Associate:—
St. Aubyn: Belville Molesworth.

RYE.

Fellows:—
Cory: Edward John, Captain.
Reeve: Kingsnorth.

ST. LEONARDS.

Associate:—
Richards: Henry Charles, K.C., M.P.

SIDLESHAM.

Fellow:—
Hobgen: Thomas Cecil.

SLINFOLD.

Professional Associate:—
Child: Charles.

SUSSEX—*continued.*

SOUTHWATER.

Fellow:—
Smith : Sidney.

STEYNING.

Professional Associate:—
West : Sidney Herbert.

UCKFIELD.

Fellow:—
Colgate : Thomas.

Professional Associate:—
Reed : Edward B.

WADHURST.

Fellow:—
Austen : Frank.

WARNHAM.

Professional Associate:—
Hodgson : Archibald Sanford.

WORTHING.

Associate:—
Warren : Reginald Augustus.

WARWICKSHIRE.

ALCESTER.

Fellow:—
Raikes : Col. George Whittington.

ATHERSTONE.

Professional Associates:—
Beach : Archibald William Hicks, Major.
Goodwin : Percy Worthington.

BIRMINGHAM.

Fellows:—
Bettridge : Edward.
Couchman : Robert Edward
Eayrs : John Thomas.
Fowler : Gerard Edmund.
Fowler : Henry.
Fowler : Richard.
Fowler : William.
Grimley : Edwin Fearn.
Grimley : Thomas.
Hadley : Frank.
Hedley : Robert Wilkin.
Hendriks : Henry.
Holbeche : Robert Neville,

Member of Council.
Jenkins : Oswald.
Kenwrick : George.
Lakin-Smith : Ernest.
Ludlow : Walter Robert.
Mason : William Arthur.
Mathews : Lewis Osler.
Pemberton : Charles Oliver Paget.
Pinney : Frederick Wyldbore Digby.
Pinson : Gilbert.
Price : John.
Robins : William Henry.
Roderick : John.

WARWICKSHIRE—*continued.*

Fellows:—
Sayer : George William.
Smith : Frank.
Williams : Edward Bickerton.
Willmot : George Dyott.
Willmot : John.

Professional Associates:—
Hawes : Frederick Kirk.
Holbeche : Nigel Laurence.
Holbeche : Robert Cecil.
Orchard : Sydney Samuel.
Priest : Albert Edward.
Redfern : Charles Frederick.

CASTLE-BROMWICH.

Professional Associate:—
Barclay : Thomas.

EDGBASTON.

Professional Associate:—
Baylis : Alfred William.

ERDINGTON.

Professional Associate:—
Gettings : Sydney Salter.

KNOWLE.

Fellow:—
Ludlow : Walter Robert.

LEAMINGTON.

Fellows:—
Evans : Walter Pearson.
Fayerman : George Metcalfe.
Southorn : Charles Herbert.

MILVERTON.

Fellow:—
Smith : Frank William.

NUNEATON.

Fellows:—
Dawson : George Crosbie.
Stewart : Samuel Parr.

Professional Associates:—
Cook : Frederick Charles.
Staley : Albert Henry.
Tait : William Ironside.

RUGBY.

Fellow:—
Cave : Henry H.
Fowler : Henry.

STONELEIGH ABBEY.

Fellow:—
Gilpin-Brown : William Dundas.

STRATFORD-ON-AVON.

Fellow:—
Deer : Edward.

Professional Associate:—
Armstrong : John William Wilson.

WARWICK.

Fellows:—
Fosbery : William Thomas Exham.
Margetts : John William.

WARWICKSHIRE—*continued.*

WATER ORTON.

Professional Associate:—
Bryan : Arthur.

WYLDE GREEN.

Professional Associate:—
Hipsley : Frederic William.

WESTMORELAND.

KENDAL.

Fellows:—
Banks : John.
Hoggarth : Arthur.
Hoggarth : Edwin.
Webster : Alexander.

KIRKBY LONSDALE.

Fellows:—
Punchard : Frederick.
Punchard : Frederick Burt.

MILNTHORPE.

Fellow:—
Holme : John.

WINDERMERE.

Professional Associate:—
Jackson : Edward Henry.

WILTSHIRE.

BEMERTON.

Fellow:—
Squarey : Newell William Pitts.

CALNE.

Professional Associate:—
Smith : Cyril Herbert.

CHIPPENHAM.

Fellows:—
Brinkworth : Robert Edwin.
Furmedge : John Harris.
Marshall : Lionel Hasler.
Smith : Henry Herbert.
Watkins : Robert Arundel.

DOWNTON.

Fellow:—
Squarey : Elias Pitts,
Past-President.

Professional Associate:—
Wrightson : John Frederick Hutton.

Associates:—
Fream : William.
Wrightson : John.

WILTSHIRE—*continued.*

FIGHELDEAN.

Fellow:—
Stirton : Thomas.

Professional Associate:—
Watt : Alexander Lindsay.

HAM.

Professional Associate:—
Burder : Reginald Edward Campbell.

MARLBOROUGH.

Fellow:—
Jeans : Mark.

Professional Associate:—
Hooper : Alfred Egbert.

PEWSEY.

Fellow:—
Ferris : George.

Professional Associates:—
Puckridge : Percival Martin.
Willmot : Arthur Charles.

SALISBURY.

Fellows:—
Bath : Fred.
Canning : William Browne.
Gater : Caleb William.
Rawlence : Ernest Alfred.
Rawlence : James Edward.
Rigden : Francis.
Squarey : Elias Pitts,
Past-President.
Squarey : Newell William Pitts.
Waters : Edward.
Woolley : John Turton.

Professional Associates:—
Hale : Francis Edward.
Martin : John Pattinson.
Pinckney : Henry Christopher.

SHREWTON.

Fellow:—
Oliphant : George A. J.

SUTTON BENGER.

Professional Associate:—
Harrison : Henry Beauchamp.

SWINDON.

Fellows:—
Bishop : Charles.
Pritchett : Ellis Herbert.

Professional Associates:—
Blyth : Harold King.
Davies : Rhys Wiltshire.

TISBURY.

Fellow:—
Combes : Cyrus.

WILTSHIRE—*continued.*

TROWBRIDGE.

Fellow:—
Mundy : Herbert.

Professional Associate:—
Snallum : Walter Wadman.

WARMINSTER.

Professional Associate :—
Whyteheard : John Layard.

WILTON.

Professional Associate :—
Rawlence : James.

WOOTTON-BASSETT.

Fellow :—
Baines : Martin Talbot.

WORCESTERSHIRE.

BALSALL HEATH.

Professional Associate :—
Perkins : Joseph.

EVESHAM.

Fellows:—
Righton : Edward Grantham.
Smith : William.

GREAT MALVERN.

Professional Associate :—
Ellis : Rupert Lumley.

HANLEY CASTLE.

Professional Associate :—
Every-Clayton : Reginald Arthur E.

KIDDERMINSTER.

Fellow :—
Joseland : Charles.

LYE.

Professional Associate :—
Weaver : Henry Percival Francis.

MADRESFIELD.

Fellow :—
Allsebrook : Arthur.

WORCESTERSHIRE—*continued.*

MOSELEY.

Professional Associate :—
Type : Marcus Oswald.

STOURBRIDGE.

Fellows:—
Chamberlain : George Arthur Raddon.
Fiddian : William.
King : Henry.

Professional Associate :—
Barratt : Harry.

STOURPORT.

Fellow :—
Clarke : Alfred Dudley.

WORCESTER.

Fellows :—
Buck : Albert.

Past President.
Buck : Herbert Wilson.
Parker : William Henry.
Stallard : William.

Professional Associates.—
Meacher : Edmond.
Minors : Ernest.
Oldnall : Roger William.
Shorney : Arthur Shepherd.

YORKSHIRE.

BALDERSBY.

Fellows:—
Gregson : William.
Peirson : George Brodrick.

BARNSLEY.

Professional Associate :—
Wade : Henry.

BEEFORD.

Professional Associate :—
Reed : Charles Cecil.

BEDALE.

Fellow :—
Clarke : Christopher.

BEVERLEY.

Fellow :—
Evans : William.

YORKSHIRE—*continued.*

BRADFORD.

Fellows:—
Armistead : Richard.
Cowgill : Brian Bollans Hird.
France : Arthur Alderson.
Gott : Charles.
Gott : Charles Henry.
Hindle : John.
Smith : Frederic Ellison.
Smith : Harry Russell.
Smith : Wheater.

Professional Associates:—
Jackson : Leonard Labrey.
Priestman : Alfred Tuke.
Smith : Arthur Telford.

BRIGHOUSE.

Fellow:—
Armytage : Sir George, Bt.

Professional Associate:—
Haywood : Samuel Spencer.

BROOMHILL.

Professional Associate:—
Kelly : George William Calver.

CROSSGATES.

Fellow:—
Townend : William.

DEWSBURY.

Fellow:—
Marriott : Arthur Sutcliffe.

DONCASTER.

Professional Associate:—
Cooke-Yarborough : Orfeur Frederic.

EBBERSTON.

Fellow:—
Bradley : William Edward.

ESCRICK.

Professional Associate:—
Thompson : Claude William George Hugh.

FARNLEY.

Fellow:—
Weatherill : George Ford.

GOOLE.

Fellow:—
Hobson : Harry.

GUISBOROUGH.

Fellow:—
Clarke : John William.

HALIFAX.

Fellows:—
Buckley : George.
Fox : Charles James.
Horsfall : Richard.

YORKSHIRE—*continued.*

Horsfall : Richard Edgar.
Jackson : Benjamin Whitehead.

Professional Associates:—
Buckley : Alfred Eustace.
Fox : Charles Edward.
Hebblethwaite : Charles Henry.
Parkinson : Edward.
Weir : James Scott.

HANDSWORTH.

Professional Associate:—
Marshall : George Ernest.

HARROGATE.

Fellow:—
Renton : George.

Professional Associates:—
Armstrong : Albert Leslie.
Rivers : Charles Edwin.
West : Arthur Smith.

HEBDEN BRIDGE.

Fellow:—
Sutcliffe : James Henry.

HELMSLEY.

Fellow:—
Bowman : John James.

HUDDERSFIELD.

Fellows:—
Abbey : Joe Burman.
Butler : Charles.
Demetriadi : Thomas Marsden
Hanson : John Henry.

Professional Associates:—
Hanson : Harold.
Kaye : Herbert.
Mallinson : Charles Herbert.
Shaw : Arthur.
Wall : Irving.

HULL.

Fellows:—
Bilson : John.
Brodrick : Frederick Stead.
Fryer : George.
Hebblethwaite : Louis.
Hewitt : Frederic Thomas Baines.
Thorp : Robert Hayton.
Todd : William Henry.
Watson : John.
Wellsted : William Henry.
White : Alfred Edward.

Professional Associate:—
Smith : John William

KEIGHLEY.

Fellow:—
Broster : Robert Buck.

Professional Associates:—
Marks : Thomas Edward.
Weatherhead : David Wilkinson.

KIRKBURTON.

Professional Associate:—
Rhodes : Ben Albert.

YORKSHIRE—*continued.*

LEEDS.

Fellows —
Clare : Edward Lovell.
Fawcett : John Mortimer.
Fenwick : Thomas.
Gott : Frank.
Hepper : John.
Hollis : Walter Dawson.
Leather : George Herbert.
Leather : William Beaumont.
Neill : James Neill.
Richardson : John.
Silcock : Edward John.
Winn : Thomas.

Professional Associates:—
Broadbent : William.
Pole : Alexander Charles Reginald.

LOWTHORPE.

Fellow:—
Piercy : Henry Onslow.

Professional Associates:—
Eastwood : Charles William.
Piercy : Frederic Onslow.

MALTON.

Fellow:—
Abbott : Robert Thomas G.

MARSKE-ON-SEA.

Fellow:—
Bigg : Lionel Thursfield.

MIDDLEHAM.

Professional Associate:—
Maughan : John.

MIDDLESBOROUGH.

Fellow :—
Lofthouse : Albert Wilson.

OULTON.

Fellow:—
Farrer : John,
Member of Council.

OUSEBURN.

Professional Associate:—
Bower : Arthur Wentworth Chivers.

PATELEY BRIDGE.

Professional Associate:—
Boord : Walter Bertram.

PENISTONE.

Professional Associate:—
Hinchcliffe : John, Jun.

PONTEFRACT.

Fellows:—
Kelly : John George.
Watson : John.

YORKSHIRE—*continued.*

Professional Associate:—
Lunn : Algernon Percy.

RAWOLIFFE.

Fellow:—
Wright : James

RIPON.

Professional Associate:—
Berry : Algernon Lawrence.

ROTHERHAM.

Fellow:—
Ambler : Sydney Wood.

Professional Associate:—
Dundas : Frederick James.

SALTAIRE.

Professional Associate :—
Turner : Ernest James.

SCARBOROUGH.

Fellows:—
Beard : Edwin Thomas.
Oldroyd : Linley.

SHEFFIELD.

Fellows:—
Coverdale : Henry.
Denton : William.
Fowler : Frederick.
Fowler : Reginald William.
Marshall : Peter.
Sandford : Charles Sidney.

Professional Associates:—
Armstrong : James Gibbons Dickson.
Bramley : Francis Herbert.
Burman : William.
Collis : Ernest Albert.
Noble : Edmund James.
Thomas : Ernest James.

KIRLAUGH.

Professional Associate:—
Hollis : Ralph.

TODMORDEN.

Fellows:—
Brocklebank : John.
Suthers : James.

WAKEFIELD.

Fellows:—
Greaves : John Oldroyd.
Kaye : John Edward.
Massie : Frank.

Professional Associate:—
King : Walter Nike.

WENSLEY.

Professional Associate :—
Petch : John Stonehouse.

YORKSHIRE—*continued.*

WHITBY.

Fellow:—
Popple : John.

YORK.

Fellows:—
Cox : Edward Samuel.
Forbes : Charles Mansfeldt.
Fryer : George.
Jolly : John Hawkins.
Watson : Herbert Edward.

Professional Associates:—
Kerr : Arthur Herbert.
Lee : George Cansfield.
Terry : Francis William.
Wheldon : Martin Lowisb.

ISLE OF MAN.

DOUGLAS.

Fellow:—
Kerruish : William Maltby.

Professional Associate:—
Kay : Walter Robert.

CHANNEL ISLANDS.

GUERNSEY.

Professional Associate:—
Morrish : Hugh Kenneth.

IRELAND.

ANTRIM.

ANTRIM.

Fellows:—
Barton: Henry Dupré Malkin.
Cordner: Clement Kennedy.

BALLYCASTLE.

Fellow:—
Johnstone: John Brett.

BALLYMENA.

Fellow:—
Knight: Maurice Charles.

BELFAST.

Fellow:—
Bagot: Lewis Brown.

Professional Associate:—
Stephens: John Kyle.

CRUMLIN.

Fellow:—
McClintock: Chas. Ed., Lieut.-Col.

GLENARM.

Fellow:—
McDonald: Allan.

RANDALSTOWN.

Fellow:—
Young: George Lawrence.

CARLOW.

LEIGHLINBRIDGE.

Fellow:—
M'Clintock: Arthur.

TULLOW.

Fellow:—
Adair: John Olphert.

Professional Associate:—
Butler: Richard Pierce.

CAVAN.

CAVAN.

Fellows:—
Blackley: Travers Robert.
Forbes: Arthur.
Trench: Arthur.

KILLESHANDRA.

Fellow:—
Godley: Archibald.

KINGSCOURT.

Fellow:—
Synge: Edward.

CLARE.

ENNIS.

Fellows:—
Keane: Marcus.
Scott: John William.
Willis: Henry de Laval.

ENNISKERRY.

Fellow:—
Johnson: Jocelyn Otway.

QUIN.

Fellow:—
Studdert: R. R.

CORK.

ARDNAGASHEL.

Professional Associate:—
Hutchins: Richard.

BANDON.

Fellow:—
Hodson: Richard Edmond.

BANTRY.

Fellows:—
Ellis: Ernest Francis Leslie.
Hutchins: Samuel Newburgh.

CHARLEVILLE.

Fellows:—
Sanders: Charles Stewart.
Sanders: Robert Massey Dawson.

CORK—*continued.*

CORK.

Fellows :—
Beamish : William Henry.
Broadley ; Edward Barry, Major.
Carroll ; Theodore Frederick.
French : Savage.
Humphreys : Daniel Peard.
Townsend : Robert Uniacke F.

CROOKSTOWN.

Professional Associate :—
Tonson-Rye : John Reginald.

MALLOW.

Fellows :—
Creagh : Arthur Gethin.
Purcell : Wills W.
Vandeleur : Cecil Ernest.

MIDDLETON.

Fellow :—
Fitzgerald : James H. B. Penrose.

DONEGAL.

RAMELTON.

Fellow :—
Swiney : William D.

DOWN.

CASTLEWELLAN.

Fellow :—
Garrett : James Hugh Moore.

DOWNPATRICK.

Fellow :—
Ward : The Hon. Somerset.

HILLSBOROUGH.

Fellow :—
Maude : Anthony Fritz.

NEWCASTLE.

Fellow :—
Brownlow : Claude,

PORTAFERRY.

Fellows :—
Brownlow : Charles.
Warnock : Thomas Archibald.

ROSTREVA.

Fellow :—
Watson : William James.

SAINTFIELD.

Professional Associate :—
Moore : Hugh Armytage.

WARINGSTOWN.

Professional Associate :—
Waring : Holt.

DUBLIN.

DUBLIN.

Fellows :—
Abbott : Joseph.
Baldwin : Chambré Corcor T.
Barton : Sir John George.
Bradshaw : Robert Macnevin.
Brunicardi : Dominic N.
Carson : William B.
Comber : Patrick Forstall.
Darley : Edmund Sanders.
Dickinson : Charles.
Galbraith : Hugh.
Gilcriest : John Fawcett.
Hamilton : Arthur.
Hardman : Edward Chambré.
Hemphill : Charles George Gordon.
Holmes : William Eden
Kincaid : James Stewart.
Kincaid : Joseph Westby.
Knight : Henry St. John.
Lyons : Francis Oliver.
Maunsell : Richard Edward.
Mills : Arthur Ernest.
Roe : William James.
Ruttledge : Thomas Henry Bruen.
Scott : John Russell.
Stewart : Ed. P., Capt.
Stewart : George Pakenham.
Stewart : Henry Pakenham.
Stewart : William Thomas.
Stokes : Richard.
Tatlow : John Garnett.
Tatlow : Tissington Wm. Garnett.
Tisdall : Henry Chichester.
Townshend : Charles Loftus.
Townshend : James Richard.
Townshend : Thomas Courtney.
Townshend : Thomas Loftus.
Trench : Philip Francis C.
Vernon : Arthur Pomeroy.
Vernon : Fane.
Warwick : George Ernest.
Willis : Gilbert de Laval.

Professional Associates :—
Coker : Ralph Hector.
Hall : Augustus William.
Hall : Henry Alexander Thomas.
Hall : John Sebastian.
Hopkins : Percy Raynes.
Jameson : Cecil William.
Kincaid : Herbert Edward.
Lisney : Harry.
McComas : Herbert William.
O'Reilly : Henry G.

Colonial Fellow :—
McCaw : George Tyrrell.

DUNDRUM.

Fellows :—
Trench : James Currie.
Verschoyle : William Henry Foster.

KILLINEY.

Fellow :—
Stewart : George Francis,
Member of Council.

KINGSTOWN.

Fellow :—
Quin : Richard.

DUBLIN—*continued.*

MONKSTOWN.

Fellow:—
Watson : Arthur B.

RAHENEY.

Fellow:—
Chatterton : Robert Smith.

FERMANAGH.

BALLINAMALLARD.

Fellow:—
Burke : Henry Anthony.

ENNISKILLEN.

Fellows:—
Maude : Christopher H.
Maude : Maurice.

GALWAY.

AHASCRAGH.

Fellows:—
Armstrong : Elliott Graham.
Mahon : George Gilbert.

BALLINASLOE.

Professional Associate:—
Crozier : George Francis.

LOUGHREA.

Fellow:—
Tener Edward Shaw.

Professional Associate:—
Gahan : Robert Bereaford.

PORTUMNA.

Professional Associate:—
Moeran : Archibald Edward.

ROUNDSTONE.

Fellow:—
Robinson : Henry Arthur.

KERRY.

ARDFERT.

Fellow:—
Trench : George Frederic.

GORTALEA.

Fellow:—
Hussey : Samuel Murray.

KENMARE.

Fellow:—
Maxwell : Henry Percival.

LISTOWEL.

Fellow:—
Crosbie : James Dayrolles.

KERRY—*continued.*

TRALEE.

Fellows:—
Denny : Francis M.
Fitzgerald : Robert John.

KILDARE.

CARBERY.

Fellow:—
Tyrrell : Garrett Charles.

CURRAGH CAMP.

Fellow:—
Alcock : Samuel.

Professional Associate:—
Browning : Egbert George.

NEWBRIDGE.

Fellow:—
Cooper : Arthur John.

KILKENNY.

GOWRAN

Fellow:—
White : Richard.

INISTIOGE.

Fellows:—
Hamilton : Ed. Chetwood, Major.
Newport : George Bellingham.

PILTOWN.

Professional Associate:—
Penrose : William Robert.

KING'S COUNTY.

BIRR.

Fellow:—
Frend : Henry.

MONEYGALL.

Fellow:—
Garvey : Toler, R.

PARSONSTOWN.

Fellow:—
Garvey : Toler R., Jun.

TULLAMORE.

Fellow:—
Browne : Ernest H.

Professional Associate:—
Bourcher : Claud J.

LEITRIM.

CARRICK-ON-SHANNON.

Fellow:—
Darley: Henry Ponsonby Shaw.

Professional Associate:—
Darley: Robert Bradshaw.

DROMAHAIR.

Fellow:—
Hewson: George Rawdon M.

LIMERICK.

ADARE.

Fellow:—
Fitzgerald: Peter David.

FOYNES.

Fellow:—
Jameson: Robert William.

Professional Associate:—
Clarke: Leonard Eustace.

LIMERICK.

Fellows:—
Barrington: John Beatty.
Hosford: Edward Henry Poe.
Hunt: William Lewis.
Hunt: William Power.
O'Brien: Donough Richard.
Welply: James.
White: Arthur.

LONDONDERRY.

COLERAINE.

Fellow:—
Given: Maxwell.

KILREE.

Fellow:—
Armstrong: Alexander Moore, Capt.

LONDONDERRY.

Fellow:—
Harvey: James George Morewood.

LONGFORD.

EDGEWORTHSTOWN.

Fellows:—
Edgeworth: Thomas N.
Wilson: Arthur J. de Courcy.

LONGFORD.

Fellow:—
Roberts: Edward Ussher.

LOUTH.

ARDEE.

Fellow:—
Lee-Norman: Alexander Henry.

LOUTH—*continued.*

CASTLE BELLINGHAM.

Fellow:—
Butler: Walter Selby.

DROGHEDA.

Fellow:—
Wynne: Alfred Henry.

COLLON.

Fellow:—
Gloucester: Thomas Edward.

DUNDALK.

Fellow:—
Bigger: John James Eastwood.

MAYO.

BALLINA.

Fellows:—
Knox: Albert Frederic.
Knox: Albert Henry.

BALLINROBE.

Fellows:—
Burke: William Creaghe.
Deane: George B.

CROSSMOLINA.

Fellow:—
Knox: Ernest Henry.

WESTPORT.

Fellows:—
Powell: Robert.
Vereker: Henry Robert.

MEATH.

KELLS.

Fellows:—
Barns: William Arthur.
Farrell: Edward Francis.

MONAGHAN.

GLASSLOUGH.

Fellow:—
McCullagh: James W.

MONAGHAN.

Fellow:—
Rogers: Harry.

QUEEN'S COUNTY.

BALLYCOLLA.

Fellow:—
Owen: Arthur John.

MOUNTRATH.

Fellows:—
Franks: Mathew Henry.
Franks: Mathew Henry, Jun.

ROSCOMMON.

BOYLE.

Fellows:—
Murphy: James Fraser, Major.
Webb: Charles.

CASTLEREA.

Fellow:—
Bowen: Edward Ferguson.

MOUNT TALBOT.

Fellow:—
Talbot-Crosbie: William D.

ROSCOMMON.

Fellow:—
Coote: Stanley Victor.

SLIGO.

CLEVERAGH.

Fellow:—
Wood-Martin: Henry Roger B.

SLIGO.

Fellows:—
Robinson: James Dodwell, Major.
Robinson: Richard St. George.

TIPPERARY.

CAHIR.

Fellow:—
Rochfort: William.

ROSCREA.

Fellow:—
Bridge: Henry Powell.

TYRONE.

CALEDON.

Fellow:—
Hearn: Chas. Richard.

DUNGANNON.

Fellows:—
Chambré: C. B. M.
Robinson: William Godfrey.

MOY.

Fellows:—
Alexander: Henry Geo. Samuel, Colonel.
Lloyd: Averell.

OMAGH.

Fellows:—
Irvine: Henry, Lieut.-Col.
Smith: George Young.

STRABANE.

Fellow:—
Baillie: John Robert, Lt.-Col.

WATERFORD.

CAPPOQUIN.

Fellow:—
Marmion: Thomas Henry.

CURRAGHMORE.

Professional Associate:—
Gethin: Randolph George.

FETHARD.

Fellow:—
Taylor: J. Godfrey L.

LISMORE.

Fellow:—
Penrose: James Edward.

TRAMORE.

Fellow:—
Gibbon: Edward Acton.

WATERFORD.

Fellows:—
Anderson: Alex. Carew.
Kelly: Richard Henry.

Professional Associate:—
Penrose: Edward Alec.

WESTMEATH.

AUBURN.

Fellow:—
Coote: Orlando Robert.

KILBEGGAN.

Fellow:—
Quin: William Thomas Cuffe.

KILLUCAN.

Fellow:—
Evans: William.

WESTMEATH—*continued.*

MOATH.

Fellow:—
Fetherstonhaugh : Theodore.

MULLINGAR.

Fellow:—
Barton : Robert Culley.

WEXFORD.

CASTLEBRIDGE.

Fellow:—
Nunn : William Bolton.

ENNISCORTHY.

Fellows:—
Grey : Charles Grey
Ruttledge : Francis.

GOREY.

Fellows:—
Stopford : The Hon. Geo. Frank Wm.
Turner : Frederick Adolphus B.

WEXFORD—*continued.*

NEW ROSS.

Fellow:—
Tyndall : Albert Henry.

WEXFORD.

Fellow:—
Nunn : William Bolton.

WICKLOW.

ARKLOW.

Fellow:—
Tailyour : Alexander.

BRAY.

Fellows:—
Hodson : Gilbert Neville.
Knox : Edward Ernest.

SCOTLAND.

ABERDEENSHIRE.

ABERDEEN.

Fellows:—
Macdonald : Ranald Roderick.
Walker : George James.

AYRSHIRE.

AYR.

Fellows:—
Johnston : James.
Stevenson : Allan.

KILMARNOCK.

Fellows:—
Duke : Freke Guy Rashleigh.
Tannahill : Robert Dunlop.
Turner : Joseph Harling.

Professional Associates:—
Canch : Thomas Richard.
Henderson : Richard.

BUTESHIRE.

BRODICK.

Fellow:—
Mather : James.

DUMFRIESSHIRE.

DUNSCORE.

Fellow:—
Wallace : William Sydney Smith.

ECCLEFECHAN.

Fellow:—
Lockhart : Peter.

LOCKERBIE.

Fellow:—
Aitken : John Malcolm.

EDINBURGHSHIRE.

EDINBURGH.

Fellows:—
Beattie : William Halden.
Bryant : George Herbert.
Davidson : James Inglis.
Marwick : Thomas Purves.
Oldrieve : William Thomas.
Robertson : Walter Wood.

Associates:—
Cadell : George.
Wallace : Robert.

EDINBURGHSHIRE—*continued.*

LIBERTON.

Fellow:—
Mackenzie : Donald Falconer.

FIFESHIRE.

DUNFERMLINE.

Fellow:—
Bell : Andrew Walker.

FORFARSHIRE.

BROUGHTY-FERRY.

Fellow:—
Winning : Douglas Campbell Wills.

DRYBURGH.

Fellow:—
Murray : Joseph.

HADDINGTONSHIRE.

LONGNIDDRY.

Fellow:—
Connor : George Harry Adams.

KINCARDINESHIRE.

STONEHAVEN.

Fellow:—
Hart : John.

MARYKIRK.

Fellow:—
Sandford-Thompson : Wm. James

LANARKSHIRE.

GLASGOW.

Fellows:—
Adam : Thomas.
Anderson : Robert.
Barr : James.
Bathgate : Charles S.
Binnie : Thomas,
Member of Council.
Binnie : Thomas, Jun.
Blair : Alexander.
Brown : William.

LANARKSHIRE—*continued.*

Fellows:—
Bryden : Robert A.
Burnet : Frank.
Copland : William Robertson.
Dansken : Alexander Brown.
Dansken : John.
Davidson : James Inglis.
Fraser : Thomas Smellie.
Fraser : William.
Fyfe : John William.
Gilchrist : John.
Hart : Patrick Campbell.
Henry : James.
Hill : Thomas Nelson.
Howatt : William.
Kirkwood : Charles.
Knox : Alexander.
Laing : David Taylor.
Lammie : George.
MacCallum : Alexander Duncan.
MacDougall : Robert.
Makins : William Alexander.
Munro : Daniel.
Murdock : Robert.
Murray : John Campbell.
Purdie : Anthony.
Robb : William Johnston.
Scott : Robert.
Sharp : John Grant.
Smellie : George.
Walker : John.
Wilson : James.
Yuille : Robert.

Professional Associate:—
Kerr : Norman Munro.

Associate:—
Wright : Robert Patrick.

HAMILTON.

Fellow:—
Cullen : Alexander.

MOTHERWELL.

Fellow:—
McCallum : James.

WISHAW.

Fellow:—
Logan : James.

ORKNEY ISLES.

KIRKWALL.

Fellow:—
MacLennan : William.

PERTHSHIRE.

BLAIRGOWRIE.

Professional Associate:—
Meacher : Sydney George.

RENFREWSHIRE.

GREENOCK.

Fellow:—
Hamilton : Robert.

PAISLEY.

Fellows:—
Davidson : Charles.
Gillespie : John.

ROXBURGHSHIRE.

HAWICK.

Fellow:—
Cunningham : Robert.

STIRLINGSHIRE.

FALKIRK

Fellows:—
Brown : Charles.
Wallace : Thomas Douglas.

DRYMEN.

Fellows —
Macpherson : William.
Murray : William Watson

Professional Associate:—
Harland : Henry Chapman.

ST. NINIANS.

Fellow:—
Whyte : John.

SUTHERLANDSHIRE.

GOLSPIE.

Fellow:—
McLean : Donald.

Professional Associate:—
McLean : Donald, Jun.

WALES.

ANGLESEY.

LLANFAIR, P.G.

Fellow:—
Jones : William Edward.

BRECKNOCKSHIRE.

CRICKHOWELL.

Fellow:—
Coles : Samuel Hood Cowper.

CARDIGANSHIRE.

DEVILS BRIDGE.

Professional Associate:—
Lightfoot : Francis Prideaux.

CARMARTHENSHIRE.

BURRY PORT.

Fellow :—
Williams : Gerald Garnons.

CARMARTHEN.

Fellow:—
Davies : Cyril Froodvale.

Professional Associate :—
Francis : John, Jun.

LLANWRDA.

Fellow:—
Davies : John Morgan.

LLANELLY.

Fellows:—
Blake : George.
Griffiths : William.
Wilkins : William.

CARNARVONSHIRE.

BANGOR.

Fellow :—
Dew : William Arthur.

CRICCIETH.

Fellow :—
Jones : Walter Butler Clough.

LLANDUDNO.

Professional Associate :—
Crockatt : Harry.

CARNARVONSHIRE—*continued.*

PORT DINORWIC.

Professional Associate :—
Stewart : Nigel Desmond.

PORTMADOC.

Professional Associate:—
Anderson : Henry.

DENBIGHSHIRE.

ABERGELE.

Fellow :—
MacNicoll : Douglas Henry

COLWYN BAY.

Fellow :—
Porter : John Merry.

Professional Associates —
Cragg : George Edwin.
Kent : Philip, Jun.
Pineger : James Reginald.

LLANRWST.

Fellow :—
McIntyre : Peter.

FLINTSHIRE.

FLINT.

Professional Associate :—
Hurlbutt : Percival.

HALKYN.

Professional Associate:—
Cope : Gerald Harwood.

HAWARDEN.

Fellow :—
Swetenham : Henry

HOLYWELL.

Fellow:—
Lynes : Humphrey Dod.

MOSTYN.

Fellow :—
Pickering : William Cloves.

ST. ASAPH.

Fellow :—
Birch : Richard Elwyn.

GLAMORGANSHIRE.

BARRY.

Professional Associate :—
Hinchsliff : Edward Robert.

GLAMORGANSHIRE—*continued.*

BRITON FERRY.

Professional Associate:—
Lyons: Edward Colvill.

CARDIFF.

Fellows:—
Corbett: Edwin Wortley Montagu.
David: Edmund Ussher.
Harpur: William.
Hern: Samuel.
Rees: Ithel Treherne.
Rigg: Charles.
Rooney: Samuel.
Seel: Robert Harold.
Thomas: George.
Thomas: Illtyd.
Waring: Charles Edward.

Professional Associates:—
David: George Willoughby.
David: Lewis Woolley.
Godding: Frank Horatio.
Homfray: Herbert Richards.
Pritchard: Henry.
Rickards: Robert Hillier Traherne Anson.
Thomas: William James Edgar.
Turner: Herbert.

HENGOED.

Professional Associate:—
Jones: Philip Vivian.

LLANDAFF.

Fellow:—
Pugh-Jones: David.

MUMBLES.

Fellow:—
Hoskins: Marcus.

PORTHCAWL.

Fellow:—
Blosse: Edward F. Lynch.

PONTYPRIDD.

Fellow:—
Evans: Arthur Owen.

ST. FAGANS.

Fellow:—
Forrest: Robert.

Professional Associate:—
Forrest: William.

SWANSEA.

Fellows:—
Leeder: Ernest Holtham.
Price: Francis Holborrow Glynn.
Pritchard: Herbert Alfred.
Rees: William John.
Thomas: Charles John Howell.

GLAMORGANSHIRE—*continued.*

Professional Associates:—
Jones: John Rice.
Puddicombe: William Phippen.
Randell: Francis William.

MERIONETHSHIRE.

BALA.

Fellow:—
Williams: John.

TOWYN.

Fellow:—
Gilliart: David.

Professional Associate:—
Roberts: John.

MONTGOMERYSHIRE.

KERRY.

Fellow:—
Poundley: John Edward.

LLANIDLOES.

Fellow:—
Grant: James.

NEWTOWN.

Fellow:—
Owen: William Scott.

WELCHPOOL.

Fellow:—
Addie: William Forrester.

Professional Associate:—
Mytton: Philip Aldred.

PEMBROKESHIRE.

HAVERFORDWEST.

Fellows:—
Owen: Thomas Henry Rule.
Owen: Thomas Rule.

Professional Associate:—
Evans: Charles Stokes Eaton.

TENBY.

Fellow:—
Whitten: George Jackson.

RADNORSHIRE.

GLASBURY.

Fellow:—
Gunter: James.

PENYBONT.

Professional Associate:—
Mackintosh: William Smith.

COLONIES AND FOREIGN PARTS.

BAHAMAS.

Colonial Fellow:—
Miller: William.

BARBADOES.

Colonial Fellow:—
Bowen: Ernest Francis Sinderby.

BENGAL.

Colonial Fellow:—
Cartwright: Frank.

BERMUDA.

Fellow:—
Walmsley: Arthur Tindal.

BLOEMFONTEIN.

Professional Associates:—
Stucké: William Henry.
Woodcock: Frank Sydney.

BOMBAY.

Fellows:—
Delves: Roert Harvey Addington.
Fritchley: Edwin Wollaston.

BRITISH HONDURAS.

Colonial Fellow:—
Usher: Charles Richard.

BUENOS AIRES.

Fellow:—
Wells: Frederick Beauchamp.

BURMA.

Fellow:—
Clancey: John Charles.

Professional Associate:—
Parsons: Mereticld Donne.

CALIFORNIA.

Fellow:—
Sherrin: John Lester.

CANADA.

Professional Associates:—
Bayley: Harold.
Chinn: Thomas Henry Gwyther.
Parker: Howard.
Reeve: Douglas William.

CAPE COLONY.

Professional Associates:—
Conneel: Thomas James.
Memmuir: Robert William.
Palliser: William Arthur.
Stockings: Arthur Perry.

CAPE TOWN.

Fellow:—
Webb: William Harold.

Professional Associates:—
Cook: Cecil Newton.
Cowin: Norris Tynwald.
Irvine: Archibald Wyndham.
Labdon: Herbert George.
Leane: Walter Burdett.
Perkin: Daniel Ward.
Wallace: Herbert Alexander Craig.
Youatt: Ernest.

Colonial Fellow:—
Phillips: William White.

CEYLON.

Colonial Fellows:—
Buyzer: Charles Allan Oswald.
Gill: James Herbert Wainwright.

CHINA.

HONG KONG.

Fellows:—
Moxon: Herbert William.
Nicholls: Edward Alfred.
Wenborn: Sidney Thomas.

Professional Associate:—
Wright: Arthur Edgar.

SHANGHAI.

Colonial Fellow:—
Godfrey: Charles Henry

DOMINICA.

Professional Associate:—
Skeat: Arthur Percival.

Colonial Fellow:—
Williams: Luther Edgar.

EGYPT.

ABOU KERKAS.

Professional Associate:—
Fletcher: Harold Venour.

ALEXANDRIA.

Professional Associate:—
Dellschaft: Adolf Henry.

TANTA.

Professional Associate:—
Speakman: John McClure.

GIBRALTAR.

Fellows:—
Hammond : Robert William.
Roberts : Samuel.

JAMAICA.

Professional Associate:—
Hollis : Herbert.

Colonial Fellows:—
Baker : William Anthony.
McGahan : Amos Harvey.

JOHANNESBURG.

Fellow:—
Farrar : Sidney Howard.

Professional Associates:—
Chamberlain : Charles.
Delamare : Frank.
Howgrave-Graham : George Ernest.
Key : Astley Cooper.
Stucké : William Henry.
Waugh : Reginald Robert.

Colonial Fellow:
Collins : Horace.

LAGOS.

Colonial Fellows:—
Oke : John Athanasius
Peters : Ishmael Edward.

MALTA.

Fellow:—
Child : Henry John.

Professional Associate:—
Bristow : Robert C.

MAURITIUS.

Fellow:—
Short : Ernest William George.

MOMBASA.

Professional Associate:—
Brand : Edmund.

Colonial Fellow:—
Baty : Sebert Conrad Elton.

NATAL.

Professional Associates:—
Osbourn : Edward.
Stead : Edward John.

Colonial Fellow:
Stott : Percy William.

NELLORE.

Colonial Fellow:—
Naidu : Ramaswami Narayanaswami.

NEW ZEALAND.

WELLINGTON.

Colonial Fellow:
Waterfield : Horace Clare.

NORTH WEST PROVINCES.

Fellow:—
Jackson : Henry.

PIETERMARITZBURG.

Professional Associate:—
Gayer : Alfred Edward.

Colonial Fellows:—
Stott : Clement Horner.
Tomlinson : William.

PRETORIA.

Professional Associate:—
Bell-John : Harry.

ROORKEE.

Colonial Fellow:
Gurney : James Stratton.

ST. LUCIA.

Fellow:—
Billingham : John Alfrod Lawrence.

Colonial Fellow:—
Cooper : John Ashley.

SIAM.

Professional Associate:—
Michell : John.

SIERRA LEONE.

Colonial Fellow:—
Rogers : Colin Percy.

SINGAPORE.

Fellow:—
Rea : John Todd.

Colonial Fellow:—
Bidwell : Regent Alfred John.

STRAITS SETTLEMENT.

Fellow:—
Lermit : Alfred William.

Professional Associate:—
Neubronner : Harry Alfred.

TASMANIA.

Professional Associate:—
McGaw : Andrew Kidd.

TRANSVAAL.

Professional Associate:—
Browne : Eustace Montague.

UGANDA.

Professional Associate:—
Boazman : Henry, Jun.

Colonial Fellow:—
Allen : Raymond Cecil.

UNITED STATES.

IDAHO.

Fellow:—
Sproat : Robert.

WESTERN AUSTRALIA.

Professional Associate:—
Steere : Edward Cecil.

WINDWARD ISLANDS.

Colonial Fellow:—
Osment : Harry Shorthose.

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